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Hygeia

THE HEALTH MAGAZINE

JAN 17

YOUR CHILDREN'S EYES

PREVENTING WHOOPING COUGH

PNEUMONIA'S WATERLOO?

SO, YOU HAVE DIABETES!

JANUARY

1947 25c

PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION

WE are proud to announce that our product, "BURNS CUBOIDS," stands accepted for advertising in publications of the American Medical Association. We know that this acceptance was granted only after a thorough investigation of our FOOT APPLIANCE.

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Hygeia
THE HEALTH MAGAZINE

Published by the American Medical Association
535 N. Dearborn St., Chicago 10, Ill.

Edited by MORRIS FISHBEIN, M.D.

VOL. 25 **JANUARY 1947** NO. 1

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WHO'S WHO *in Hygeia*

From Child's View

Born in Detroit, Mich., MRS. ROSE LEION received her B.A. degree and teacher's certificate from Wayne University. She said, "I taught kindergarten in Detroit schools for eight years and remember my own childhood so vividly that I feel I can sense the child's point of view in many things."

Writes About Children

LOUIS W. SAUER, M.D., is attending physician in the division of pediatrics at the Evanston (Ill.) Hospital, assistant professor of pediatrics at the Northwestern University Medical School, medical director of The Cradle (Evanston's famous home for infants), and immunologist at St. Vincent's Infant and Maternity Hospital in Chicago. He is known throughout the medical world for his development of "Sauer's vaccine," that has made whooping cough a preventable disease.

Hygeia's Art Director

Our Art Director, CHARLES TURZAK, designs the original illustrations and layouts that appear with HYGEIA's articles. This is a demanding and exacting job. After reading the manuscripts he plans the rough layouts, sketching in the figures and allotting the proper space for the reading matter.

When this is completed the artwork is assigned to various freelance artists—who are invariably specialists in certain types of drawing. For instance, one is assigned the hand lettering, another is selected for fine, anatomical detail and another for his excellent portrayal of babies. We shall tell you about some of them in later issues.

Art Director Turzak, who has been with us for the past five years, was born of Czechoslovakian parents in Streator, Ill. He studied art at the Chicago Art Institute and gleaned additional art lore by visiting the famous museums of Europe. Exceedingly versatile, his activities are not limited to magazine illustrating. He is skilled in water colors and oil, he has four murals to his credit, and is internationally famous for his woodcuts. His work is in many private and public collections here and abroad.

(Continued on page 7)

old are good friends . . . but beware of old

Old *shoes* get friendlier as time goes by . . . but old *glasses* can betray your eyes. Eyes change —but glasses don't!

If it has been more than two years since your eyes were examined, chances are *your eyes have changed*—and no longer 'fit' your present glasses. Perhaps you need a *new* prescription to keep your good vision from gradually deteriorating into not-so-good vision. Why take chances? Make *sure* your glasses are right for your eyes! Have them examined now.

℞ . . *Professionally prescribed when needed to make seeing more comfortable.*

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About Shoes

Question:—How soon should I put low shoes on the baby, or should she have low shoes from the very beginning? Also, how much wider than the foot should the shoe be?

Ohio.

Answer.—All babies learning to walk need ankle support and high shoes, with soles stiff enough to hold the correct position of the feet, should be used at least through the second year. The decision then would depend on the condition of the feet.

Most important consideration in fitting shoes on small children is to see that the heels fit so snugly that pronation or rolling cannot occur. This means that the shoes should be only wide enough to fit comfortably.

Trouble with Adenoids

Question:—I have a grandson, aged 10, who had his tonsils and adenoids removed when he was 2; when he was 6 he had the adenoids removed again. Now he does not hear well. What should be done?

Wisconsin.

Answer.—In some cases, because the adenoids are located in an area that cannot be seen by the surgeon, complete removal is not possible. Furthermore, this type of tissue has the ability to regenerate, and it is possible that this occurred in the case of your grandson. There is a possibility that this regrowth has blocked the opening in the small tube leading from the throat to the middle ear, and this may be causing his deafness. A new form of treatment has been developed that consists of the application of small amounts of radium to the area about this opening. This destroys any tissue overgrowth that may have occurred. We suggest that your grandson be examined by a specialist in treatment of diseases of the throat and ear, with whom this new treatment can be discussed. It is important that a thorough examination be made as promptly as possible.

Birthmarks

Question:—If a woman is pregnant and she is frightened is she liable to bear a child with a birthmark?

New Jersey.

Answer.—The old superstition that frightening a pregnant woman would result in a birthmark on the child is no longer accepted. Impossibility of such an occurrence becomes obvious when one considers that the unborn child, though it is carried within the mother's body, is a separate individual from the moment conception occurs.

Only contact with the mother's body is through the blood supply system of the placenta by which the child obtains the necessary food and oxygen. There is no nervous connection and this emphasizes the impossibility of any mental impression being translated into a permanent mark on the body of the child.

Chewing Trouble

Question:—My 2½ year old daughter has all of her teeth except two and refuses to chew and is still on strained and chopped baby food. Can you suggest anything for me to do?

New York.

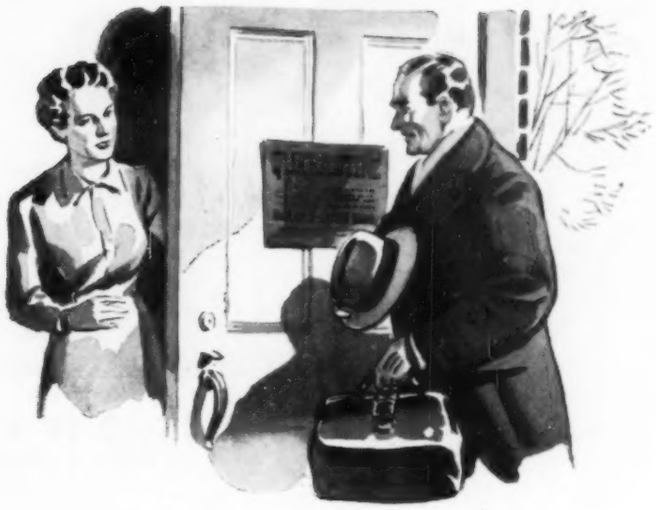
Answer.—Refusing to chew vegetables and meat when harder foods are acceptable is an expression of negativism on the part of the child. She undoubtedly causes concern by holding the food behind her teeth, and enjoys her challenge to parental authority. Contrary to popular belief the young child does not learn to chew by eating chopped foods. As a matter of fact, the commercial varieties of chopped and diced vegetables have been on the American scene only a few years.

What can this mother do specifically? First, if the child is in good health, let her feed herself. Serve the food as attractively as conditions permit. Do not set any rules that she must eat this or that. Let her be the judge. She is capable of helping herself. If she takes a piece of meat and holds it in her mouth, don't feel abused or insulted. It's her mouth. If she shows you the food behind her teeth, make no remark about it. She will either swallow it or she will ultimately spit it out. In time, if you disregard her challenge, she will stop. You will never be wrong if you follow the principle that it is your duty to supply food and it is the child's responsibility to eat or leave it.

Second, if the child is not up to par physically, consult your physician. He can tell you better than any one else what to do.

Third, if your doctor assures you that the child is well, don't try to teach her how to eat. Give her the opportunity to exercise her own impulse toward eating.

These columns are for the mothers among HYGEIA'S readers. Questions will be answered by qualified physicians either through these columns or by letter.



IN THE NUTRITIONAL SETBACK OF

Acute Illness

During the course of acute infectious illness, two factors operate to undermine the nutritional status—the sharply increased metabolic needs imposed by the elevated temperatures and the toxic state, and the loss of appetite which characterizes acute disease. Food loses its appeal during these periods, and if the intake of nutritional essentials is allowed to drop, recovery may be retarded and return of full strength delayed.

By incorporating in the diets of acute illness the food drink made by mixing Ovaltine with milk, the nutritional setback which so often occurs can be largely averted. This delicious nutritional supplement supplies generous amounts of the essential nutrients needed. It is appealing even when other foods are refused, and is taken by young and old patients alike.

It provides high quality protein, readily utilized carbohydrate, easily emulsified fat, B complex and other vitamins including vitamin C, and essential minerals. Three glassfuls daily go far in balancing the diet during acute illness.

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CARBOHYDRATE	64.8 Gm.	NIACIN	6.81 mg.
CALCIUM	1.12 Gm.	VITAMIN C	39.6 mg.
PHOSPHORUS	0.939 Gm.	VITAMIN D	417 I.U.
IRON	12.0 mg.	COPPER	0.50 mg.

*Based on average reported values for milk.

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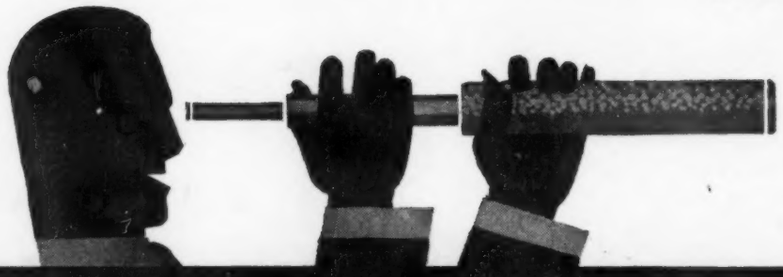


Coming in HYGEIA

GLAD YOUR CHILD IS NOT A GENIUS?

By Julien Steinberg

Many people believe that genius is associated with physical inferiority, mental illness, sometimes moral depravity and worse. Intelligent research has proved this idea false. Yet, often, people with exceptionally gifted children prevent them from realizing their fullest capacities by forcing them to be more like other children. In doing this, they frequently cause maladjustment and impose unnecessary hardships on the child who is, by nature, a nonconformist.

POSTURE

By M. Beckett Howorth, M. D.

Most of the attention given posture has been directed toward the static positions of lying, sitting and standing, but Dr. Howorth says that the dynamic postures of the body in motion or in action are more important. In this article he describes the development of posture and carriage in infancy and childhood and the causes and effects of bad posture and the ways of correcting it.

CONQUERING YOUR ALLERGIES WITH DRUGS

By Leo H. Criep, M.D.

A milestone has been reached in the road of treatment for allergy with the development of the new antihistaminic drugs. Although their use is limited to temporary relief of symptoms and they are effective for only a few of the many allergic disorders, they forecast the beginnings of a new era in the chemical treatment of allergy.

TO HEAR OR NOT TO HEAR

By Louise Neuschutz

A hearing aid requires as careful fitting as glasses, and generally requires more adjustment but when properly used it can be of just as great benefit to the wearer. Suggestions for selecting and using an aid and some further suggestions for relatives and friends of the hard of hearing are contained in the February article.

PSORIASIS, THE THREADBARE MANTLE

By Lester Hollander, M.D.

Psoriasis has many forms, but any one of them causes great distress to the person afflicted, due to the unsightly scaling of the skin that is characteristic of the disease. No one knows the reason for psoriasis although a number of theories are being studied. Until the cause is found, treatment will continue to be the uncertain procedure it is today.

Who's Who in Hygeia

(Continued from page 2)

Charlie's artistry is not confined to wood, canvas or paper, however. He designed his house, located in the outskirts of Chicago, that boasts a large, plate glass living room window facing the street. During the holidays this house is a mecca for people from miles around.

For Charlie, weary of the usual Christmas card ideas, air brushes a holiday scene on this window. Ingeniously lighted from within, it is his way of saying "Merry Christmas."

His weakness, in addition to the failing of most artists, absent mindedness, is spelling. Some of the strange words that have drifted across the layouts include "emergincy, exzema, pregancy and wooping cough."

Mother Is Author

"I am a housewife and mother of three school age children," ADELINE BULLOCK explains. "Although I did not mention the fact in my article, I am a registered nurse and working as a nurse, teacher and instructor in health education in one of our Long Island schools.

"I have done a little writing from time to time, mostly in the early hours before the family is up. I have been fortunate in selling these occasional pieces and my first fiction story (not yet published) has been bought by Ave Maria. And now this one to you."

Raises Bees

After graduating from the Harvard Medical School in 1905, HILBERT F. DAY, M.D., author of the unusual article, "Finger-Ring Removal," reentered the school's doors as an instructor of surgery. His chief interests, besides surgery, are in individuals and their betterment, farming and bee raising.

Romance Language Teacher

MELVA LIND is a specialist in French literature and music and was awarded the Doctorate of the University of Paris that is known in this country as the Sorbonne. At the present time she is an assistant professor of French at Mt. Holyoke College.

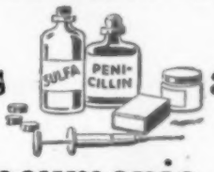
A distinguished interpreter of French repertoire, Melva Lind has sung in concerts and recitals in France, New England and the Middle West.

She authored a French treatise on the aspects of nineteenth century Parnassian poetry in France and is a member of Theta Sigma Phi, honorary society for women in journalism.

Never neglect a cold!

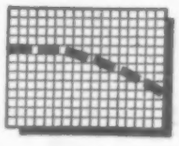
That will help avoid pneumonia. But if pneumonia should strike,

don't let it frighten you. Medical science, aided by the sulfas



and penicillin, has reduced pneumonia mortality by about one half in the past 10 years.

If more people who have bad colds, or colds that hang on, would call their doctors, the pneumonia death rate would *drop still further!*



Fight pneumonia by guarding against colds!

Try to keep in the best of health during the winter, for by keeping fit you lessen the risk of colds and pneumonia. However, if you get a bad cold, stay home and go to bed if possible, eat lightly, drink plenty of fruit juices and other liquids. Be especially careful not to get chilled.

Watch out for pneumonia's warning symptoms, which are usually a severe shaking chill followed by fever, coughing accompanied by sharp pains in the side or chest, and often rust-colored sputum. However, one type, *virus pneumonia*, starts slowly with a gradual rise in temperature, a feeling of chilliness rather than a shaking chill, and a slight sore throat with a hard cough, but little or no sputum.

Some types of pneumonia, like virus pneumonia, do not respond to sulfa or penicillin. Whatever the type, calling the doctor quickly permits the prompt diagnosis and medical care which afford the best chance for rapid recovery. For other important information about pneumonia, influenza, and the common cold, send for Metropolitan's free booklet, 17Z, "Respiratory Diseases."

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TO VETERANS—IF YOU HAVE NATIONAL SERVICE LIFE INSURANCE—KEEP IT!

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TRULY, THIS IS AMERICA

Teamwork...when it matters most

The doctor and his nurse . . . a shining example of that typically American custom—teamwork. Working in unison, frequently side by side, they mesh their special skills smoothly and easily.

Theirs is a delicate relationship, held together by mutual respect and understanding, and by a common dedication of their lives to the ideals of medicine. Taking over when the doctor leaves off, the nurse assists, provides an extra brain, an extra pair of hands.

"...doctor and nurse develop skilled teamwork"

Unfettered by restrictions, both doctor and nurse develop skilled teamwork and technic. In medicine, as much as in any field, progress flourishes best in an atmosphere of free initiative. In such an environment, the great medical advancements have been made during the years ...are still being made by professional men and women, free to interchange ideas.

"Ciba ...contributes new and better pharmaceuticals"

In the typically American town of Summit, New Jersey, Ciba devotes its time and energies to the service of the medical profession.

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LETTERS from the Readers

Layman Writes

To the Editor:

I find HYGEIA to be a splendid medium and source of the information that is necessary to one who wishes to keep in touch with advances being made in the field of health and medical science. I get a lot of valuable information from HYGEIA.

W. W. THORNTON
Texarkana, Texas.

Hygeia in School

To the Editor:

We have a monthly set of twenty-five copies of HYGEIA sent to our library. The set is first given to the science department for classroom use and then, as soon as it is returned to the library, is used by other class groups. At the end of two months, after all classes as a group have had time to use the intact set, the librarian sends a copy to each teacher for a permanent file in his room. Remaining copies of the set are sent to the social studies office to be used by teachers in their classes.

MARJORIE SCHRAMLING, *Librarian*
Los Angeles High School
Los Angeles 6, Calif.

Seeks Information

To the Editor:

Could you send me a copy of the article, "The Melancholy Colon," too? I would also appreciate tearsheets of any other articles on the colon. Like your other subscriber, I keep watching for articles on this subject. I am a victim of spastic ulcerative colitis—have had it for the past six years and have been disabled for the past seven months. X-rays do not show cancer.

READER'S NAME WITHHELD
Trenton, N. J.

Answers "Disgusted Reader"

To the Editor:

There are no laughs to be had in your magazine, but on reading the October issue I got a few on reading letters you published saying your magazine is useless, uninteresting and what not. Let me say at this time that I find it one of the best health magazines I ever read and will continue to subscribe to it as long as I live.

IRVING BELZAC
New York, N. Y.

Is there diabetes in your family?

Painted by Lily Harmon

"In the past 25 years so many improvements have been made in treating diabetes, that even though you develop symptoms, you can expect to live out your full life span, and live pretty much like anyone else. You and I must become partners in fighting this disease. We must make out a simple, good diet; keep a watch on the amount of sugar in your urine and the level in your blood. You may never get diabetes, but even if you do it can be controlled simply. The important thing is for us to work together *before* you get sick, and continue this close relationship if trouble occurs."

Your doctor

To live with diabetes in safety and comfort . . .

1. ***Go to your physician at once*** if you are losing weight but feel hungry all the time, or if you are constantly thirsty and void often. Diabetes is easiest to control when detected early. Even though you are well, see a physician if there is diabetes in your family and you are overweight.

2. ***Watch out for minor cuts,*** boils or carbuncles if you have diabetes. They may open the door to infection. Take care of colds promptly, and guard against intestinal upsets.

3. ***Follow your doctor's advice faithfully,*** particularly with regard to diet. It is never safe to think of diabetes as "cured." If the doctor recommends insulin and regular tests, carry out all his instructions.

FINE PHARMACEUTICALS SINCE 1886

Upjohn
KALAMAZOO 99, MICHIGAN

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"YOUR DOCTOR SPEAKS"—Nineteenth in a series sponsored by Upjohn to bring better health to more people through current medical knowledge

Helpful Modern Points of View

Presented with the hope this will be interesting and helpful to you

In the interest of encouraging correct speech habits for your baby later on, you may be interested in these steps you can take now...

It is the general belief of specialists in speech psychology today that a child commences forming the basis for his later speech habits a long, long time before he utters his first words—in fact, almost from the very instant of birth. And whether or not a child is to grow up free from speech defects is considered, to a large extent, dependent upon the actions of the parents during these early, formative months.

Here are four steps suggested by these specialists as being among the most important you can take now:

(1) Starting your baby out with lots of rocking and good, old-fashioned "mothering". You'll be helping to establish rhythmic breathing and that important sense of emotional security.

(2) Imitating the definite sounds he begins to make; then, later, you might present definite sounds for *him* to imitate.

(3) Talking to him as much as possible, particularly after the first year, making your sentences short, repeating them often, and emphasizing the short, key words.

(4) Making frequent use of rhymes, rhythms and songs just for *fun* — so that he will come to associate pleasure with the act of speaking.

This information comes from Mr. Stanley Ainsworth, Supervisor of Speech Correction at Indiana State Teachers College and a Professional Member of the American Speech Correction Association.

We hope the foregoing is helpful to you just as millions of people find chewing Wrigley's Spearmint Gum helpful to them.

Wrigley's Spearmint Gum
is your standard of quality
for complete chewing satisfaction

Baby Rearing

To the Editor:

I feel if all mothers read HYGEIA they would know more about rearing their babies without so much trouble and expense. MRS. L. D. GREEN

Gainesville, Texas

Spastic Colitis

To the Editor:

I recently became a reader of HYGEIA and have found it of such interest and value that I never expect to be without it in the future. Your articles about cancer have been responsible for my having x-rays made of my colon, and for the discovery by my doctor that I have spastic colitis. I see by earlier letters in the "Readers" column that you had an article on the subject in HYGEIA some time ago, and I would appreciate it if you would send me a copy of it.

READER'S NAME WITHHELD

Bloomfield, Neb.

Kentuckian a Reader

To the Editor:

I am very grateful to you for answering my questions and giving me the information on pneumonia. I enjoy reading HYGEIA very much and derive much information from the articles. MRS. DORA SMITH

Bowling Green, Ky.

Criticism Is Justified

To the Editor:

In your usually exacting and helpful magazine, HYGEIA, there appears a surprising statement in the issue for September, 1946. On page 648, in answering the first letter of your "Questions and Answers" column, and referring specifically to tuberculosis, the following sentence appears:

"Hospitalization sometimes is indicated in the more serious cases."

At a time when so much effort and money, both public and private, are being expended in the interests of early diagnosis and prompt treatment of tuberculosis, it is quite disconcerting to find HYGEIA planting in the public mind the idea that hospitalization is reserved for the occasional case.

CHARLES E. LYGHT, M.D.
Director, Health Education,
National Tuberculosis Association

NOTE: *The criticism is justified. HYGEIA has always stood for treatment of the tuberculous in sanatoria. Sanatoria are hospitals, though not general hospitals. It was the intention to state that some tuberculous patients need to be cared for in general hospitals. There was no intention to imply that tuberculosis can be treated satisfactorily outside the sanatorium.*—ED.

CENTENNIAL

of American Medicine

An Editorial by MORRIS FISHBEIN

The American Medical Association was founded in Philadelphia on May 5, 1847. The assemblage did not gather by any common impulse arising suddenly in the minds of those who attended. For some years a number of physicians had observed certain problems related to the advancement of medical science which concerned them greatly. They had begun to speak in medical meetings and to write in medical journals about the importance of getting together with a view to overcoming certain deficiencies in medical education and abuses in medical practice which were gradually undermining the framework of honest scientific medicine. Perhaps their activities were a reflection of the fact that new discoveries had begun to increase greatly the efficiency of the physician in diagnosing and overcoming disease. Since the time when the American Medical Association was first established, it has been the proud boast of physicians in this country that they always clean their own house when evils begin to creep into its structure. The medical profession of the United States did more to create the public health departments of the individual states, to eliminate frauds and nostrums in medical practice, to raise the standards of medical education and to improve the distribution of medical care than has any other single agency.

During the fifteen years between 1830 and 1845, the number of medical colleges in the United States more than doubled. There was active rivalry among them and competition without restraint for the securing of medical students. Promoters sought by shortening the term of study and by establishing easy terms of graduation to induce great numbers of students to enter these medical colleges and to pay the fees. The schools were commercial in character and there were no laws of any kind that could control the evil. Out of the desire to overcome this abuse primarily came the calling of a national convention with a primary purpose of elevating the standard of medical education in the United States. As might have been expected the commercial interests that were involved and which saw in such an organized attack on their exploitations the end of their depredations, did everything that they could to prevent the organization of the American Medical Association. They attacked the leaders who were responsible for the movement. They published scurrilous pamphlets and insinuated that their motives were not idealistic. Nevertheless, the very obvious need for the movement insured its success. The Committee which called together the first convention explained its objectives in four simple sentences:

They felt that it was expedient for the medical profession of the United States to institute a national medical association.

They asserted that it was desirable that a uniform and elevated standard of requirements for the degree of Doctor of Medicine should be adopted by all the medical schools in the United States.

They recognized that it was desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education.

Finally, they solemnly pronounced that it was expedient that the medical profession in the United States should be governed by the same code of medical ethics.

The purity of their motivation, their earnestness and their integrity in assembling to achieve these objectives represent one of the most significant actions for the good of the people of the United States that has occurred in our history. Looking back on a hundred years of progress, we may claim in the light of the evidence available that they founded well and that their objectives have been realized. Today the American Medical Association is an organization which includes in its membership more than 130,000 physicians, the vast majority of the reputable medical profession of the United States. The requirements for entrance into the study of medicine have been steadily raised so that the young man who enters a medical school today is the product of a good fundamental education in not only the basic sciences but in social sciences and in the arts and letters. The medical schools of the United States with a single exception have achieved the standards set by the Council on Medical Education and Hospitals of the American Medical Association and the quality of our medical schools is in this centennial year superior to that of the medical schools of most of the rest of the world. The principles of medical ethics of the American Medical Association represent a code founded primarily for the protection of the public and its observance is accepted as routine by our medical profession.

The celebration of the Centennial which takes place in Atlantic City June 9-13, 1947, will witness the largest assemblage of physicians that has ever occurred. There will be visitors and representation from the medical societies and medical organizations of most foreign nations. Vast exhibits will demonstrate graphically the progress of medical science in the century that has passed, greater progress than has ever been made in all the previous centuries of the life of man.

THE DIABETIC CHILD

"I took young Jack upon my knee,
He was so small, in fact just three,
I showed him how to hold the "gun"
That he might take his insulin.
I am so proud of that young elf,
For now he takes it by himself."

SO OFTEN this remark is heard, "Isn't it too bad when children develop diabetes?" It is too bad when children are handicapped with any illness, but I'm sure all of us are agreed that if we were to compare diseases there are many that are more undesirable than diabetes. Don't feel unhappy if your child has diabetes. It just means that for the time being you must surmount obstacles that otherwise would not have been included in your role of parent. You must lead the child into a happy attitude towards his illness, teach him the spirit of cooperation and from the very beginning train him to take his own injections. As soon as his tiny fingers can grasp a syringe teach him this art. You will always be glad you did. Measuring the quantity can be taught later. As soon as you feel he is old enough to make the tests, teach him that too.

One woman was heard to say recently, "My nephew has had diabetes since he was 5 years old. He is 18 now. I have always prepared and weighed his food, given him his injections—in fact, I have never permitted him to even watch while I administer them. This has tied me down so much at home that I have never been able to marry." She looked as though at any moment she expected a golden halo to nestle softly on her head. The woman didn't realize that what she thought was a great kindness to the nephew was only handicapping the boy. For years this boy has been stripped of his independence and the diabetic education that is so imperative to his life. Treatment of the boy has resulted in a good case of inferiority complex.

If you can succeed in teaching the child to take interest in things outside of himself and instill into his mind the importance of routine diabetic living, you will have scored a big point. Fear must not be in the child's thinking, therefore it must not be in yours. The diabetic child should be made to feel that his living is no different from that of any other child's and your happy approach to all circumstances will create confidence in himself and you.

Make his meals attractive. Here are a few suggestions. Use colorful dishes, changing the color scheme with each meal. Fiesta ware is good for this purpose and is no more expensive than other china. As you fill his cereal dish from day to day change the color and size of the dishes. His attention will be drawn to the dishes and he will not be as apt to notice the similarity of his foods. Use a glass with painted palm trees for orange and grapefruit juice. Add to the attraction by telling the story of where these fruits are grown. Doctors tell us that diabetic children are unusually bright, so don't underestimate your child's mental capacity.

When teaching the child the names of foods,

by Vivian Lessel

include the food values. For instance—orange juice 10 per cent, peas 15 per cent, or perhaps you would rather teach him to recognize amounts in grams; for instance, orange juice 100 grams; peas 75 grams, or whatever the amounts call for in his diet. This system will make his understanding of foods easier when he is older and you want to teach him to determine his own diet.

Teach your child to eat slowly. Two small boys were interned with their parents in Santa Tomas prison in Manilla during World War II where their rations were scanty. Towards the end of the three year imprisonment they were so weak they had to lie down to eat. The boys discovered that if they ate their thin soup slowly, there was something sliding down the little red lanes for a longer period of time, there was not so much time to wait between meals and the effects of the food lasted longer. The boys contested to see who could make his soup last longer. This same principle of eating slowly is good for all diabetics to follow, whether they are children or adults.

Do not permit well meaning friends and neighbors to feed your child. One woman said,

The author, who is a diabetic victim, explains why the diabetic child should always be taught to take care of himself

"Mrs. Johnson always wants to feed Jimmy. She should be told not to, but I don't want to hurt her feelings and don't know what to do." There is no mother in all the world who has more right than the mother of a diabetic child to go directly to Mrs. Johnson and in kind but no uncertain words, make it known that Jimmy is not to be fed one mouthful of food outside of his home. Jimmy's very life is at stake, to say nothing of the breaking down of the diabetic training his parents have taught him. If everyone could understand this one point alone it would make the diabetic existence an easier one for all of us and especially the children.

All diabetics have been warned of the careful attention they must give their feet. This fact is important to the child also. Don't permit your diabetic child to "outgrow" his shoes, or wear shoes that rub blisters on his feet, or wear hose that are too long or too short for him. It is a good idea to take him to a good chiropodist, have his feet analyzed for proper size and type of shoe best suited for him and then take him to a reputable shop for a perfect fit. This is important and the few extra dollars should never be considered a barrier. It would be far better for him to wear a coat he has outgrown than to take even the slightest chance with his feet.

If your child is young, perhaps you would like to teach him these rhymes in addition to the Mother Goose stories. He will enjoy them.

"I'm always thankful when I eat,
Because my food is hard to beat,
I like my eggs and milk and toast,
In fact, I like each one the most.

My butter is so yellow,
Just like the shining sun.
I'll eat it all, then I can play
And have a lot of fun.

I only eat what mother makes,
For she cooks all that's best,
And then I feel so very good,
Crammed full of zip and zest.

My mother always lets me take
Some candy mints with me,
And if I feel I'm getting weak,
I eat—say, two or three.

I do each day what mother says,
And stay close by her side.
I know when Daddy comes at night
He'll hug me tight with pride."

The child might enjoy this rhyme at the time of taking his insulin injection.

"My mother called, I must go in,
It's time to take my insulin,
I hold the 'thing-ma-jig' just so,
It's like my toy gun, you know.
My Daddy says I'll grow to be
A man as big and tall as he."

For the little girl, the last three lines may read:

"It's like the boy's gun, you know,
My Daddy says I'll grow to be
Just like my Mom, as fine as she."

When you tuck him in bed at night, it might be well to have him include in his bedtime prayer thankfulness for life, the joy of life, good food and an earnest request to be helpful to others.

Rearing a child calls on parents to be many things, but to rear a diabetic child calls for wise parents with even a greater love and understanding than is usually demanded. My hat is off to those parents who have successfully met and won this challenge. *(Continued on page 74)*

By WARREN L. ANDERSON

WANTED: MORE PROTEIN

HUDDLED around a small, poorly stoked fire in front of a hillside cave, a dozen people were holding their hands outstretched trying to capture the heat rising from the fading coals. At the entrance to the rocky cave, a boy of perhaps 10 years, bowl in hand, was using chopsticks to feed his dying mother the boiled weeds and leaves that he had found that morning.

Inside the cave, seated on the damp floor, a father held the small, nearly naked, ulcerated and fevered body of his little daughter. By sundown she would join her mother in death from smallpox caused by the lack of medicine, shelter and food.

The scene occurred in April, 1946, in Yunnan Province, China. In a greater or lesser degree it was a scene being reenacted by five hundred million people in Europe, India and China. Never before had so many people faced starvation; never before was an organization such as UNRRA faced with a greater and more humane task. Never before had the world so great a need for proper nutrition—for proteins.

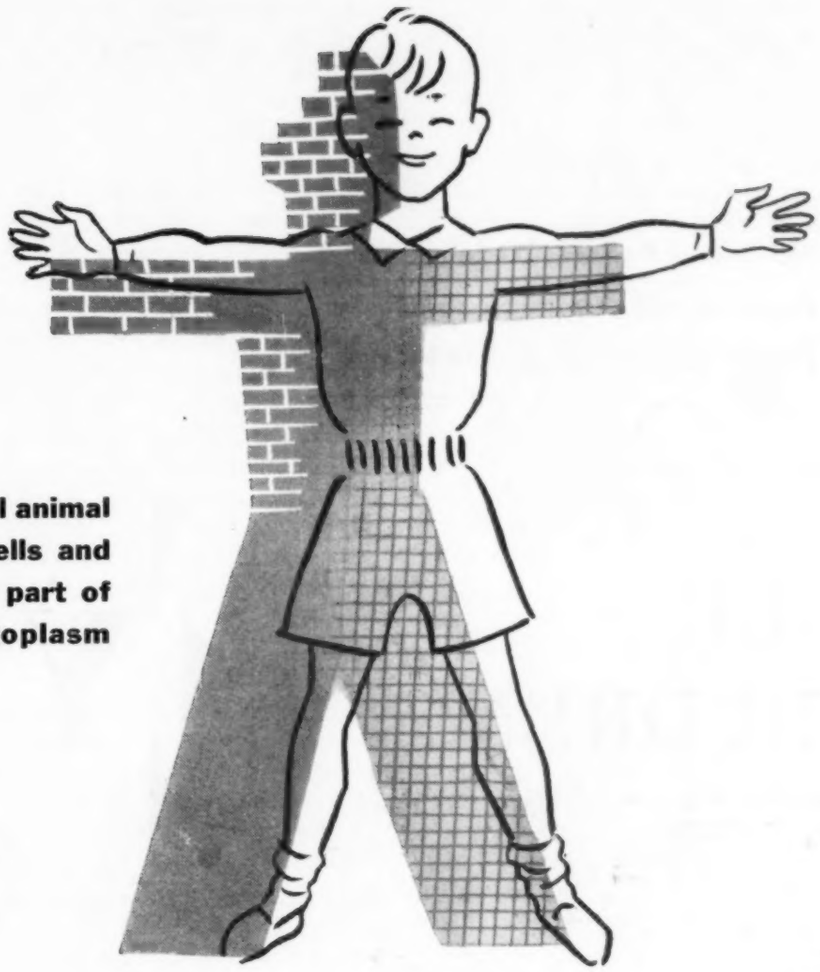
In looking at the requirements of either a healthy or starving man from the standpoints of quantity and quality, one of the greatest is protein. Without an adequate supply of proteins in his diet, no amount of fats, carbohydrates, vitamins and minerals will keep him alive for any appreciable length of time.

All of us necessarily learned about the conservation and values of various foods during the war and rationing, but little was revealed about the significance of proteins in dietary habits. Most of our attention was focused on the caloric and vitamin contents of foodstuffs. What are these things that the dietitian and biochemist call proteins? What makes them so important in complete and proper nutrition?

Proteins are present in all animal and vegetable cells and are the essential part of the living protoplasm of those cells. While certain classes of fats and carbohydrates are also found in that protoplasm, those same groups might be found in several of the various tissues of the organism. Not so of proteins. Their paramount role is that in no two tissues will they be exactly alike. They seemingly confer on the several types of cells the biologic specificity of the tissue in question; they are largely responsible for making one type of tissue unlike another tissue. For example, while the fats and carbohydrates found in muscle cells may be the same as those noted in some other and entirely unrelated organ, the protein in each will be different.

Fats and carbohydrates, the two other large classes of foods, have as their chief function the generation of energy. The prime task of proteins is to build the body tissues. Plants and bacteria synthesize their own proteins from simpler organic and inorganic compounds and thereby have a ready storehouse of materials necessary for the growth, maintenance and regeneration of their tissues. But we and other higher animals have lost this synthesizing ability and must rely on the proteins in our foods to carry out these bodily processes.

Chemists have shown that the "building blocks" of these complex compounds—proteins—are amino acids. Twenty-two have been identified to date. The first was discovered in 1820. Nearly all are to be found in each of the proteins so far recognized. Joined together in a myriad of combinations (imagine scrambling twenty-two letters of the alphabet in as many ways as possible), these amino acids give rise to an almost infinite number of proteins in nature.



Proteins are in all animal and vegetable cells and are an essential part of the living protoplasm

Of these known amino acids, less than half are essential to the promotion of growth and maintenance of body weight. Professor William C. Rose and his coworkers at the University of Illinois, outstanding nutritional researchers, have shown that ten are indispensable to the white rat, that eight are probably needed by man.

When they and other amino acids, linked together as a protein, are eaten or otherwise introduced into our digestive systems, that protein is acted on by the proteolytic (protein-splitting) enzymes secreted by the pancreas and intestinal wall. This digestion breaks the protein into smaller molecules, i.e., peptides, proteoses, peptones and finally to amino acids. These acids diffuse through the small intestine wall, pass into the blood stream and on to the liver. Some of them subsequently pass to the various organs of the body to build specific tissues, hormones and enzymes. Others are converted to carbohydrates and fats for the ultimate production of energy. Others, those not needed by the body, are broken down to urea and excreted by the kidney.

One of the cardinal functions of the amino acids in our systems pertains to their part as newly formed proteins in resistance to infection. Dr. Paul R. Cannon, renowned University of Chicago scientist, says, "All pathogenic microorganisms are foreign proteins; therefore, from the standpoint of the host, resistance to them is basically a protein problem, i.e., a problem of protein digestion." Certain white blood cells are responsible for this digestion, or phagocytosis, as your doctor calls it. However, when they cannot handle the task by themselves, so-called antibodies arise from a protein matrix within the tissues and help to rid the body of the invading germs. The production of these white blood cells and antibodies is closely bound with the amount and quality of protein consumed. If the little Chinese girl we mentioned earlier had had adequate proteins in her diet, she would have been able to fight off the smallpox germs that invaded her body.

Clinicians have noted the tendency of persons suffering from either malnutrition or undernutrition to acquire severe tuberculosis, rheumatic disease and respiratory and enteric (intestinal) infections. Likewise, in debilitating diseases of the kidney, in cirrhosis of the liver and cancer of the digestive tract, there is often a development of intercurrent or modifying infections.

Even in persons who believe that they are eating enough proper foods, fluid collects in the connective tissues of the body and causes an often painful swelling. *(Continued on page 77)*

"All cases of cross eyes can be corrected if the patient and his parents cooperate completely," wellknown eye specialist has stated

YOUR CHILDREN'S EYES

By ADELINE BULLOCK

A SMALL boy's report card is responsible for this story that has a happy ending because of a successful eye operation. My son, Jack, and I had gone to the eye doctor to have Jack's eyes tested before he was fitted for new glasses. A visit that had been planned for a routine examination culminated in our leaving that office with a worrisome letter of admission to the nearest hospital. Jack needed an immediate eye operation.

Jack is the youngest of our three children and we think he is wonderful. Imagine the blow it was to us to receive his first grade report card with its three red marks and these neatly written words: "John is lazy and indifferent!" No parents could ever be more irate.

After the indignant fumings subsided, we tried to figure it out. I knew Jack's teacher. The two older children had been in her class and I was certain that she hadn't made a comment of that kind without reason.

I listed as objectively as possible all the words that would describe Jack. I weighed his actions under various circumstances, I considered his responses to various situations, ruling out as much mother prejudice as I could. Some things were in Jack's favor, many were not. He was a restless child, concentrated poorly, was untidy about a lot of things and mischievous and forgetful. Not a flattering list. I knew too that he was eager, enthusiastic and cooperative. Lazy and indifferent didn't fit into the picture. I decided to go to the school and find out about Jack's classroom behavior. I am glad now that I did.

Reading, it seemed, was one of the first grade's main activities. At that time Jack acted his worst. He was restless, bored and indifferent. He didn't even pretend to keep his place after his turn to read was over. He would gaze unconcernedly and blissfully out of the window or look hopefully about the room for a little trouble he could get into. That's what it seemed like to the teacher. "Lazy, indifferent." It seemed that the teacher was right.

I talked with Jack about it, even scolded him. He didn't know why he did it. He liked books and stories at home. Then the stories we read together were read mostly by me and they went along at a swifter pace than those in the first grade reader. Perhaps this was the reason, I thought. I kept a closer observation of Jack for I wasn't fully satisfied then with that solution.

Soon I noticed that he was squinting his right

eye a lot. Was this a new mannerism he was acquiring? Was it a habit he had gotten into? Or did he do it to see better? I inquired at the school about his vision test. I knew our school gave a thorough test with the telebinocular machine.

"Everything seemed normal at the time he was tested," the school nurse told me. "But the little ones are difficult to test," she added, which immediately left room for doubt as to the accuracy of the results.

"Perhaps it would be best to consult an eye specialist," she advised. That seemed like the sensible thing to do, for the eye doctor, with the use of drops, would be able to get a true picture of what these only eyes of Jack's really were seeing. Here I found the answer.

The doctor discovered that a not too serious farsightedness existed; but the real trouble was a "latent or borderline case of cross eyes." I was appalled! Fortunately most cases of cross eyes are obvious. Some, like Jack's, are not. Specialists say that cross eyes are more prevalent than even medical doctors realize. The economic loss to the nation as well as to the individual from blindness resulting from neglected or uncorrected cross eyes is a serious and pitiful one, because cross eyes can be corrected.

Jack's "turn" in the right eye was making it impossible for the two eyes to focus together. He saw everything double; one vision was clear, the other blurred. The squinting that I had noticed was a natural attempt to screen out, or "suppress," as the doctor put it, the blurred vision leaving one clear picture. The longer he continued doing this, the farther the eye would have turned and complete blindness from disuse would have resulted. A lucky thing for us that his teacher had criticized him! How glad we were that we had looked into it!

"Jack's been under a terrific strain," the doctor told me. "An adult's muscles couldn't do what his have been doing. Only because he is a young, healthy child whose muscles have excellent tone, has he endured it this long."

"Then this condition may be causing his reading difficulty too?" I asked.

"Definitely!" he assured me. "It would be impossible for him to focus those eyes on any close object for more than a few seconds at a time. The strain becomes so great that he unconsciously seeks escape or relief by looking at some distant object—the horizon, perhaps."

I thought of the teacher's words: "When his turn to read is over, he loses interest and gazes out of the window." Lazy! Indifferent! No wonder!

The doctor first prescribed glasses, hoping their use in conjunction with exercise and "patch wearing" over the good eye would strengthen the poor one. That first year or so there was an improvement, evidenced more in his behavior than anywhere else. You see, he was no longer under such a terrific strain so the behavior resulting from that strain was eliminated. For a time the eye condition must have been more or less at a standstill. Last year it became worse. The cross was becoming obvious. In Jack's case, glasses couldn't do it. Only as a last resort did the doctor decide to operate. I knew nothing about eye operations, of course. The thought of a mere man, eye specialist or not, operating on my child's eye made me weak. I was scared! I pictured all sorts of awful methods necessary to do the trick on Jack's eyes. Imagination was playing havoc with my common sense. I wanted Jack to be calm and confident and here I was speedily working myself into a froth. I decided to ask the doctor a few more questions about what he would actually do. Facts, I knew, were always better for me than the products of my own imagination.

It was a simple procedure, he told me. A clean, small incision along the conjunctiva, a speedy adjustment of the faulty muscle and tendon and it would be over. It is a delicate operation, like all eye surgery, and the doctor certainly was well trained in his work. But it is not necessarily a dangerous one.

"Complications from muscle operations are rare," he assured me. I felt and acted better.

I talked calmly then with Jack. I gave him some idea as to what he might expect by way of preparation—enemas and things. I thought that if he was like me he wouldn't like surprise attacks but would want to know what was going to happen to him.

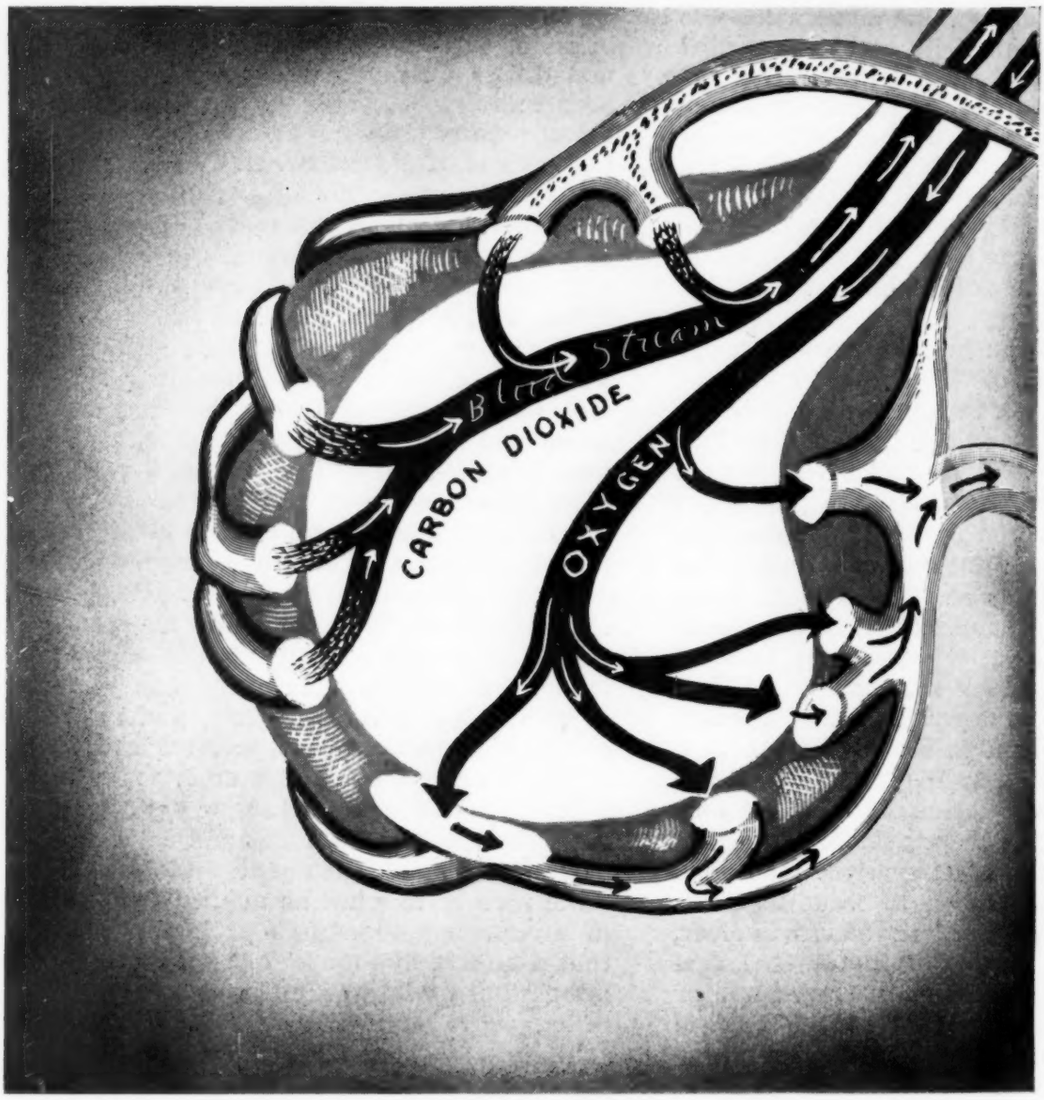
"Holy cow!" was his only reply when he learned about the enemas and he returned to the radio program he was listening to. It was as simple as that to 11 year old Jack.

Thirty minutes from the time he went into the operating room he was back in his hospital bed, sleeping quietly, color good, the worst over. The eye was completely bandaged with a black patch over the dressing to eliminate any possibility of light filtering through.

He was groggy that day but by evening he was quite himself. He had fruit juice and gingerale and was amazingly comfortable. He didn't even need a "pill" that night; he slept soundly until morning. In fact he suffered no pain at any time. The only discomfort he had was from the itchiness of the adhesive that held the dressing in place.

Next day we brought him home. "The dressing can be changed at my office every second day," the doctor told me. "Everything is fine!"

Jack had three dressings that first week. One week from the day of operation, he wore no dressing at all—just a pair of good sun glasses. In three weeks' time he was fitted with new glasses and was back in school. When we return to the doctor again in three months it is quite possible that he won't *(Continued on page 74)*



The 20 per cent oxygen content of normal air must frequently be increased to aid pneumonia patients to breathe. Special oxygen masks have saved many lives

By WILLIAM W. BOLTON

THIRTY years ago, there was no exact treatment for pneumonia. Twenty years ago, medical science developed serum treatments, and with this new weapon physicians were able more often to defy this killer. Ten years ago, chemical treatment was introduced, replacing almost entirely the once important serum and offering even greater prospect of reducing the toll from this disease.

Today, further refinements in chemical treatment give hope that physicians have within their grasp an opportunity to deliver the knockout punch against pneumonia.

This breathtaking panorama of progress deserves closer examination from several aspects. What, for example, should the public understand about the newer treatments for pneumonia? What can it expect?

Pneumonia is still pneumonia, still a crafty, fast working menace to life. Given any sort of a start, allowed to go untreated too long—and sometimes that "too long" is measured in hours—it has as much destructive power as ever. Though it is being forced from the position it once held near the top of the list of our deadly diseases, it is still high enough on that list to cause concern.

Statistics for as late as 1945 reveal a decrease in the pneumonia deaths for every one hundred thousand persons in the United States; nevertheless it is still not too far behind such major killers as diseases of the heart, cancer, kidney disorders and accidents.

Pneumonia attacks the lungs. The germs settle in the millions of microscopic air pockets that comprise the lung mass. Blood flowing beneath the tissuethin membrane lining these air pockets has been sent there to pick up oxygen from the inhaled air. But pneumonia germs, by their irritation and rapid increase in

numbers, prevent this normal transfer of oxygen. The difficulty increases as the body's defense forces send troops, in the form of white blood cells, to the invaded area to fight the germs.

As more of the tiny air pockets are involved, whole sections of the lung become sodden battlefields into which no air can enter. These soggy, almost solid, areas show clearly under x-rays, permitting prompt confirmation of the diagnosis. This means the body's normal oxygen requirements can be met only by harder work on the part of lung tissue that has not been attacked. It explains one of the classic symptoms, rapid breathing. A pneumonia patient always seems to be gasping for breath, often may breathe three or four times faster than normal.

Special measures are taken frequently to furnish extra oxygen to pneumonia patients. Normal air contains about 20 per cent oxygen. That is an adequate concentration for the average healthy person, but obviously not enough for the pneumonia patient who may have one lung or parts of both lungs incapable of picking up oxygen. Such a patient will have an easier time absorbing oxygen through the still functioning lung tissue, however, if the concentration is raised to 40, 50 or even 100 per cent. That is accomplished by the use of so-called oxygen tents, airtight canopies placed over the patient and connected to an oxygen supply that can be adjusted to any concentration. Special type

Pneumonia's Waterloo?

masks into which oxygen can be introduced are also used. In many instances, this form of treatment has been credited with saving the life of the patient.

That's not the entire picture. In addition to jamming the oxygen traffic system, pneumonia germs produce poisons, known as toxins. These enter the patient's blood stream and reach all areas of the body, the heart, brain, liver, kidneys and other important structures. There are many different strains, or families, of pneumonia germs that have been identified as the most common enemies of man, and each of these produces a special toxin. Some are more deadly than others, but all interfere seriously with the body's normal operation.

In many patients the invasion may be so overwhelming that pneumonia germs enter the blood stream through the lung tissue. When this condition, known as bacteremia, develops the germs may be carried to various parts of the body and start irritation similar to that caused in the lungs. Abscesses may form in the brain, for example, or the inner lining of the heart may be attacked.

Such a three way attack makes it obvious why pneumonia once stood almost at the top of the list of man's deadly enemies. It explains, too, why pneumonia was described in older textbooks of medicine as the special nemesis of infants and the aged. To fight such an invasion requires all the resources of a robust body, and even then an overwhelming onslaught may turn the scale.

Physicians of thirty years ago, and for all the centuries before, had to be skilled generals, watching constantly the tide of battle, ready to throw all available medical weapons into the fray as the patient's resistance began to ebb. It is a tribute to such generalship that pneumonia did not become a more serious threat to man's existence. Effective supportive treatments were developed, including the use of digitalis for a flagging heart, special tonics to sustain a fever ridden body and medicines to maintain the function of digestion and elimination.

Small wonder, then, that the development of specific serums to fight pneumonia was hailed with enthusiasm. With these serums, many a patient survived when previously he would have been an easy victim. There were certain difficulties, however. In order to administer the proper serum, the physician had to learn first just what type of pneumonia germ was responsible. There was no "shotgun" serum that would fit all cases. This problem was solved partially by the establishment in most hospitals of special laboratory facilities for prompt diagnostic service. Soon the introduction of a so-called rapid diagnosis test, made simply by examination of the germs under a microscope, speeded the promptness of identification. In addition, hospitals and State health departments have available quantities of previously prepared serums for use against the common forms of pneumonia. Elaborate delivery systems were maintained to rush these to physicians requesting them.

Even so there were still inadequacies. Despite widely available diagnostic services, on occasion there was difficulty in getting specimens of sputum from the patient to the laboratory. Also, it was found that *(Continued on page 50)*

PREVENTING WHOOPING

Three thousand deaths from whooping cough have been reported annually. Nearly all the victims were in the 1 month to 1½ year old bracket

WHOOPING COUGH, the bane of infancy and early childhood, is preventable. There are two ways this can be accomplished. One is to avoid exposure; the other is to protect all infants by the injection of three doses of potent vaccine soon after the age of 6 months.

To diagnose and isolate the first case wherever it appears—in the family or school—parents, physicians, nurses and teachers should be whooping cough conscious. To avoid exposing a child to the disease requires early diagnosis of the disease in others. This is, unfortunately, difficult. That a coughing child might be coming down with whooping cough seldom occurs to parents unless exposure of a susceptible child is known to have occurred. To prevent spreading the disease, all exposed susceptibles should be isolated until it is known whether they develop or escape the infection. Delay until a definite whoop is heard, before a case is reported to the health department and quarantined on the premises, usually exposes many infants and children who have not been protected by vaccine injections or who have not had the disease.

After the infected child shows symptoms of a head cold and begins to cough, whooping cough bacilli (H. pertussis) are spread into the surrounding air. When these exhaled germs are inhaled by a susceptible child the germs multiply (incubation period). After they have increased sufficiently the child has symptoms of the disease. A "cold" develops because the delicate membranes lining the respiratory tract become irritated and discharge profuse protective mucus (catarrhal period). Invisible droplets exhaled at this stage are laden with the causative germ. During the following weeks the cough becomes worse. The "spell" becomes more frequent, severe and prolonged. The eyes water during the coughing attack (paroxysmal stage). Not until relatively late in the course of the disease does the characteristic gagging, coughing up of tenacious mucus and the "whoop" occur. The latter is due to difficulty in breathing. In infants and aged people it may be absent, even in severe cases. These severe coughing attacks are nature's attempt to rid the body of the germs. Those swallowed with the mucus are destroyed by the stomach acid. Many more pollute the air surrounding the patient.

Years ago, Dr. Ludvig Hektoen, one of America's greatest immunologists, wrote in HYGEIA: "Of all contagious diseases whooping cough is the most likely to affect the youngest members of the family and herein lies its chief danger. Even the tiny baby is not immune; many cases occur in infants of 6 months or less, while the largest proportion occurs between the ages of 1 and 3 years."

As a rule, age, season of the year and social status of the patient determine the severity of the disease. The younger the child the more likely it is that the course of the disease will be severe. Infants of the city poor, in orphanages, and those in small towns and villages where lax health laws (no quarantine) exist are likely to be severely afflicted. During late autumn, winter and spring these young whooping cough victims are more likely to contract complications such as bronchopneumonia. In the late spring, summer and early autumn, these patients are vulnerable to diarrhea and convulsions. A serious complication is enteritis, most prevalent in institutions and orphanages for infants.

Whooping cough is more prevalent and causes more deaths in children under 2 than do the three other preventable contagious childhood diseases—smallpox, diphtheria and scarlet fever combined. In recent years, somewhat less than 200,000 whooping cough cases and 3,000 deaths have been reported annually. Most of these cases occurred during the first 5 years of life; nearly all of the deaths occurred in the first 18 months, mainly during the first year and these figures are below those of a decade or two ago. Its persistent frequency is due to several causes. In the first place, infants and young children are more susceptible to it than to other diseases and the disease is therefore more prevalent. This exposes more susceptibles. Scientists have proven that the most contagious period is the early stage of the disease—many times a week or more before the patient is quarantined. Furthermore, because early diagnosis is diffi-

cult, the patient in the germ-spreading stage mingles freely with susceptibles before being quarantined. Thus an outbreak occurs before local health authorities can check it. A government authority recently stated that about one-third of all whooping cough cases are not reported because many patients are either not seen by physicians, or they fail to make a diagnosis and report the cases.

The most important reason so many cases and preventable deaths still occur is that far too few infants over 6 months of age are protected by vaccination.

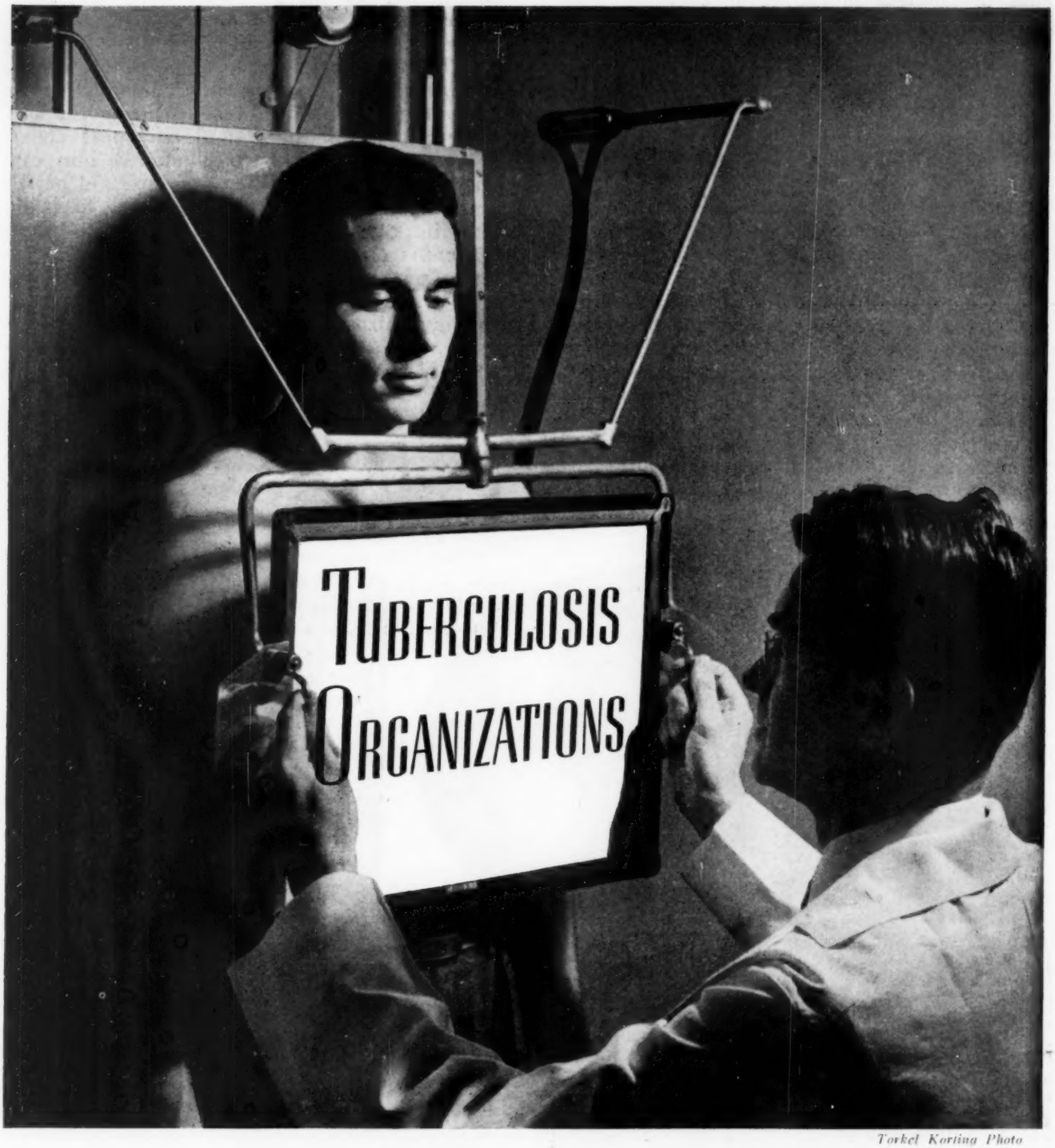
Although smallpox and diphtheria immunization has been in use for longer periods of time, authorities agree that the three injections required to protect an infant against whooping cough should be performed just as early as the vaccine is likely to confer prolonged protection. It is customary to give the first injection soon after the infant is 6 months of age.

Immunization of infants with whooping cough vaccine is a recent health measure. During the past five years, health departments, clinics and many physicians have lacked sufficient help to pay attention to the new preventive health measures. Diphtheria prevention is well established. To establish whooping cough prevention, would have necessitated additional personnel, equipment and time. Now it has been found that whooping cough and diphtheria prevention can be combined. These two preventive measures can now be given simultaneously from the same syringe without weakening the protection from either disease. When these protective injections are followed routinely by health clinics throughout the United States and when more physicians combine these two medical measures, the incidence of whooping cough will decrease and whooping cough deaths will not occur. But, immunization of infants against whooping cough must get under way! Municipal health departments, physicians and parents throughout the country should request that whooping cough vaccination should be given with the diphtheria toxoid.

The Health Department of the City of Evanston, Illinois, a city of 70,000, adjacent to Chicago, has conducted a semi-monthly whooping cough prevention clinic since 1931. During the last seven years, diphtheria and whooping cough immunization have been combined into one series of injections. Infant welfare and health department nurses instruct mothers to bring their infants to the clinic soon after they are 6 months of age. Three doses of diphtheria toxoid-pertussis vaccine are injected in alternate arms at monthly intervals. Months later the immunized infants are given tests to determine whether adequate protection to both diseases was conferred. Rarely do the tests show insufficient immunity. When they do one stimulating ("booster") dose of the mixture is given and the child is later retested. Many local physicians inject their private patients in a similar manner. The number of whooping cough cases in the city has decreased tremendously. In 1944, only three cases were reported. None of the three had been injected with vaccine. No case of diphtheria has occurred within years. Few injected welfare infants have developed whooping cough. Among the thousands of children injected at the clinic, twelve "failures" are known to have occurred since 1934. These injected children developed the disease years later.

Before the days of whooping cough immunization in a Chicago orphanage for infants, thirty deaths occurred in one summer from whooping cough complicated by enteritis. Immunization was instituted there in 1931. During the past fifteen years no whooping cough death has occurred there. Since *(Continued on page 73)*

By LOUIS W. SAUER



Torkel Korling Photo

THE Early Diagnosis Campaign emphasizes the importance of the physician's position in tuberculosis control. The slogans, without exception, referred to the work of physicians, but modern developments in the field of tuberculosis have been taken directly to him and numerous short courses for physicians on tuberculosis have been arranged by the secretaries of tuberculosis associations throughout the country.

Since 1917 the National Tuberculosis Association has published "The American Review of Tuberculosis." This journal, intended primarily for the chest specialist, is to be found in many medical libraries because of its interest to the general practitioner.

Through the close cooperation of the National Association with the American Medical Association, the *Journal* of the latter organization has published many articles on tuberculosis. The associations have been on friendly relations through the years and the tuberculosis association from time to time has had the privilege of making suggestions with reference to articles published in the *Journal* of the American Medical Association. Under the editorship of Dr. Morris Fishbein, tuberculosis has been given its full share of space, as indicated by the fact that

By J. ARTHUR MYERS and VIRGINIA L. DUSTIN

in 1937, alone, seventeen original articles, one hundred and sixty-nine abstracts and one hundred and twenty-nine miscellaneous notes, letters, editorials, etc., on tuberculosis were published in that *Journal*. In 1935, the American Medical Association published the results of a survey on tuberculosis hospitals and sanatoriums in the United States.

Through the educational activities of the National Tuberculosis Association among all groups, the increase in practical application of the knowledge of tuberculosis during the past third of a century has been phenomenal. During this brief period, more has been accomplished than in all the centuries of the past. Even with the advantages of retrospect, it is practically impossible to find a place where the funds of the National Tuberculosis Association could have been used in a more profitable manner to control tuberculosis.

This, then, has been the story of the great tuberculosis associations, how they organize, and how they operate in the campaign against the great white plague. It is due to their organization and their marvelous cooperation that so much has already been accomplished. In the last analysis, it is the personalities behind the scenes that make the organization work. We have discussed the work of Mr. Newcomb and the great annual sale of Christmas seals. Here is the story of another unusual man behind the scenes, William A. Doppler, who is responsible for much of the recent, far reaching educational work of the National Tuberculosis Association.

The work of CHARLES NEWCOMB and WILLIAM DOPPLER in various tuberculosis organizations is described in this final instalment

Like Mr. Newcomb, Mr. Doppler is a staff member of that association and, also like Mr. Newcomb, he has won his own personal bout with tuberculosis.

William Arkwright Doppler likes to tell people that he is a born "tuberculofer"—that the cure suits him exactly, as he loves all the things implied in the word loaf—that he likes to read, to relax and to do nothing. Maybe he does, at times, but lazing and loafing do not describe Mr. Doppler. He is one of the most able and energetic people one could meet anywhere. He is an interesting combination of practicality and artistry. He thinks clearly, largely and like a logician, and at the same time has that streak which marks the artist or research man—the desire to experiment. He has a knowledge of world affairs, for he spent his boyhood and youth in the United States and most of the countries in Europe.

William Doppler was born in San Francisco on December 4, 1891. Elizabeth Arkwright, his mother, was of Scotch ancestry, the daughter of a Glasgow merchant. While she was attending finishing school in Switzerland, she eloped with a young Swiss doctor. The newlyweds went to California, where Dr. Doppler built a medical practice among the large Swiss colony that had settled on the coast.

In 1897, in search of a climate that would "strengthen her weak lungs," Mrs. Doppler left for Europe, taking with her William and his elder sister, who were placed in boarding schools while their mother traveled for her health. Climatic treatment for tuberculosis was the universal prescription, and Mrs. Doppler sought health by traveling—a restless searching that ended only with her death in Rome in 1912.

In accordance with his mother's ideas of education, William attended various schools to study various languages. Instinctively, he turned to science and, finally, to organic chemistry. Among the great teachers whom Doppler searched out were Fisher, who had just broken down albumin into amino acids; Willstadter of chlorophyl fame; Treadwell for analytic chemistry; Forster and Ostwald the Younger for electrochemistry; and Einstein in mathematics.

The world was then in a period of great chemical discoveries, particularly in the field of organic and biochemistry. Willstadter, for instance, had demonstrated the structure of hemoglobin and Ehrlich had developed his famous side-chain theories. Bordet and Gengue had discovered the hemolytic reaction utilized by Wassermann in the well known blood test. Copper and gold salts were finding an experimental use in tuberculosis therapy. Perhaps because he had witnessed his mother's long struggle with this disease, William Doppler had the hope that some day he might find a chemical that would do to tuberculosis germs what Ehrlich's salvarsan had done to spirochetes. After receiving the degree of Doctor of Philosophy in organic chemistry from the University of Zurich in 1914, he obtained a research fellowship at the Pasteur Institute in Paris, and his life seemed to be directed toward a professorship and research work.

In the summer of 1914 came the World War and William Doppler's plans, like those of so many thousands of young men, were not fulfilled. Laboratory scientists were called into service and the rest were left at loose ends, since research was virtually abandoned. One of Doppler's intimate friends was a young Serb, a fierce patriot and a capable bacteriologist. They offered their help to the Serbs in the struggle for freedom. They went to *(Continued on page 62)*

ME TOO

By BERNARD HIRSHBERG

"MOTHER," said 12 year old Selma, "I'm going to the library." "Me, too," echoed 3 year old Beth.

"Mother, I'm going to a meeting of my club," said Selma. "Me, too," said Beth.

They've dubbed her the "Me, Too" baby.

Little Beth wants to do everything that her older sister does. She persists in following in Selma's footsteps and imitating her activities. Always you can hear her murmur, "Me, too."

Me-too-babies are fun—for a while. The situations that arise, in which Beth wants to follow the trail blazed by her older sister, are often comic and the family enjoys a hearty laugh. If the imitative tendency is not checked in time, little Beth may develop a "me, too" personality. She may outgrow her baby years but she may not outgrow her dependence on her sister's leadership!

The tendency to depend on another person for guidance may rob her of all initiative that is associated with a mature personality. She may develop a "nambi-pambiness" that is not desirable in a young lady.

Normal people need to exercise a normal amount of self-reliance and self-assertiveness. To grow up in an environment where one's activity is initiated by another person may lead to a permanent lack of self-confidence and a feeling of personal inferiority.

Parents should arrange situations where children will have to rely on themselves to attain desired ends. Though a child naturally learns through imitation it is undesirable to limit its education to the imitative process.

Children should be taught self-reliance. "Me, Too," babies should be discouraged. Emphasis should be placed on children developing their own programs of play, study and personal adjustment to life. For, only in this can they learn to be dependent on their own resources and ability.

To keep the FLU BUG from biting

By LOIS MATTOX MILLER

YOUR chances of catching influenza this winter—even if this should be an epidemic year—can be reduced to a minimum. A new wartime-tested vaccine, effective in about 75 per cent of cases, is now available to the public, ready for administration by the family doctor. One shot, most authorities believe, is sufficient to provide winter-long protection. The cost of the vaccine is approximately one dollar per dose.

Many large department stores, banks, public utilities, and insurance companies already have lined up their employees for the protective needle. These firms feel that the cost is small compared to the work-days lost to flu in the average winter, and insignificant indeed compared to the loss of efficiency in an epidemic year. Public health men say that vaccination should be considered particularly for the school-child, office worker and factory workers.

The battle against the influenza virus has been long and discouraging. Pressing enough in peacetime, the need for flu protection in wartime became desperate. Always a menace to concentrated civilian populations, the disease was even more apt to sweep through troops living in barracks and workers overcrowded in war industries. The anti-influenza project therefore got a top priority in research.

Three British researchers isolated the virus of Type A influenza in 1933. Six years later, U. S. scientists produced an experimental vaccine that promised some immunity against that common type of influenza, but was wholly ineffective against other types that were still unidentified.

Then two pioneer flu-fighters, Drs. Thomas Francis, Jr., and T. P. Magill, working independently, isolated the virus of Type B influenza and worked out a method to incorporate the captive viruses in a protective vaccine.

The next step was to find out if the vaccine really worked. The Army hoped to find the answer during the winter of 1942-43. But that year the theoretical "flu cycle" skipped a beat. The epidemic failed to materialize.

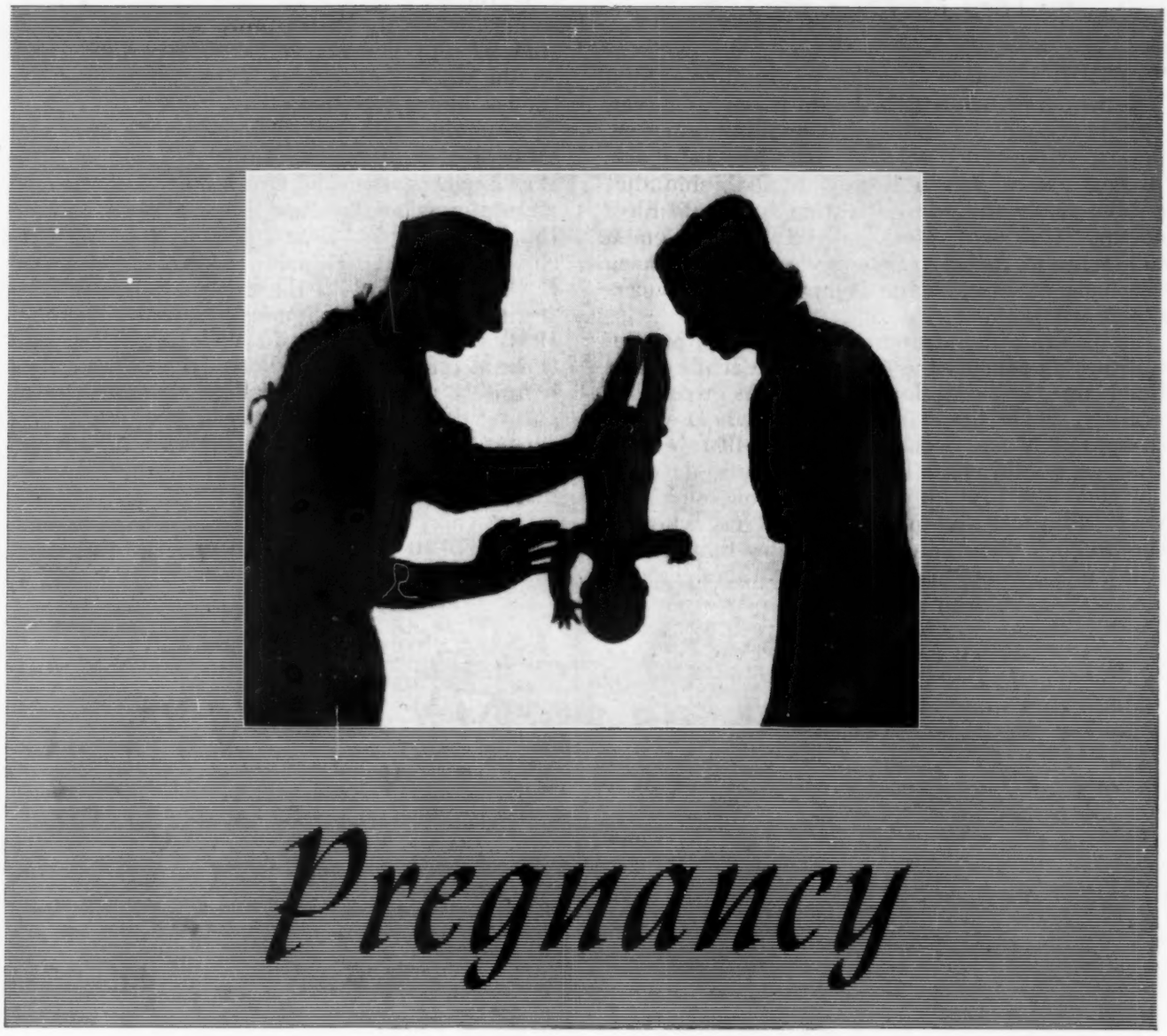
It was predicted very definitely that there would be an epidemic of Type A influenza the next winter. The Army went ahead with plans for an elaborate test. Men in nine different units of the Army Specialized Training Program, twelve thousand five hundred of them in all, stationed in the East, Middle West, and on the Pacific Coast, were inoculated in October-November 1943, half with the combined A and B vaccine, half with the control solution.

The predicted epidemic broke in November 1943, rose to a peak in mid-December, and tapered off in January 1944. It was identified definitely as Type A influenza. Some investigators declared the outbreak was the most severe since the great pandemic of 1918-19 (world estimate: five hundred million cases, fifteen million deaths).

The vaccine did the job. Slightly more than 2 per cent of the vaccinated men got flu; more than 6 per cent of the unvaccinated "control" group. The epidemiologists offered a theory which made this picture even more impressive. The unvaccinated men, they maintained, had benefited indirectly from the relative immunity of the vaccinated group. Immunization of part of any small community, they explained, not only cuts down incidence of the disease, but also decreases the chances of that disease spreading to others! Thus it may be possible some day to check epidemic influenza by vaccinating only a certain percentage of the population.

This experience was enough to convince the Army. In the fall of 1945, the Surgeon General ordered all Army personnel in the continental U. S. to be vaccinated. That winter saw an epidemic of Type B influenza.

Quartered on the campus of the University of Michigan were 600 Army men—all vaccinated. Also quartered there were 1,100 Navy men, an unvaccinated group. Among the unvaccinated Navy men flu incidence ran close to 10 per cent. In the Army group it amounted to little more than 1 per cent. *(Continued on page 64)*



SEVERAL weeks after the dinner party Marion called Dorothy at the hospital. "Betty had her baby this morning and they were afraid that there might be something the matter with it. It didn't cry when it was first born and now it is in an incubator and being given oxygen. Do you suppose it will be all right, Dorothy?"

Dorothy's reassuring voice came back over the telephone. "Of course it will be all right. A baby's hold on life seems a delicate thing during the few hours after birth when it is establishing itself as an independent living being having suddenly left the protection of its mother's body, but they practically all make the transition successfully.

"Bob called me yesterday saying Betty was in the hospital and that the doctor had given her some medicine so that she would not feel the pains of labor. In fact, when he talked to me she was totally unaware of anything that was going on. Bob said she was afraid of going through labor and insisted that the doctor give her something to put her to sleep."

"Would that have any effect on the baby?" asked Marion.

"Any drug which is given to the mother may affect the baby as long as it is unborn, and anything which puts the mother to sleep may put the baby to sleep. If a baby is born while still under the influence of such a drug it may be very slow in beginning to breathe—and on rare occasions it may never breathe. Usually, however, in spite of the fact that it is a little slow in getting started it soon becomes entirely normal, and we will hope that that has happened to Betty's baby."

"Do you suppose she knew that the baby might be harmed because she was afraid to stand the pains of bearing her child?" Marion asked.

"I doubt it," answered Dorothy. "I believe there are few women who have gone through nine months of waiting and planning for a baby

who would risk injuring or losing it in order to save themselves pain. That does not mean that I am not in favor of some relief being given to practically all women, but it should be left to the doctor's discretion and should not be given only because the patient insists on it. Every woman can be anesthetized at the time of delivery. There is no more reason why she shouldn't be anesthetized then than that she should have an operation without an anesthetic. Most women do better, however, if they are awake during most of their labor and the babies almost certainly do better."

"I know some one who took little yellow capsules and didn't even remember she had been in labor when she woke up and was given her baby," said Marion. "I thought maybe I would ask for yellow capsules too when little Hiram comes."

"If you do I shall be ashamed of you," said Dorothy. "We have patients every day who ask for pink pills or blue ones, and don't you do it! By the way, how are you feeling? Any signs of the imminent approach of your offspring?"

"No," answered Marion. "He is supposed to arrive next week and Dr. Raidon told me the last time I saw him that it might be any day now. I am hoping it will be soon, though."

Marion hung up the receiver and wandered about the house, unable to settle down to the morning's tasks. It was hard waiting these last few days and she wished that she, too, had the birth of her baby behind her. The nursery had been in readiness for days and all of the new clothes were arranged neatly in drawers of the chest John had recently decorated. The bath oil and talcum powder were in shiny new con-

This is the final instalment of the story of the nine months of life before birth written by Dr. EDITH L. POTTER, one of Chicago's outstanding woman physicians

tainers. The baby scales that Helen Walton had loaned her had been polished until they looked like new in spite of the fact that they had served most of Helen's friends since she herself had had need of them. Even the folding canvas bath tub with its cover on which little Hiram could be dressed had blue ribbon bows tied to the legs that supported it. John had laughed when he saw them.

Except for the fact that John seemed anxious to have a son, she almost hoped her baby might be a girl. Little girls, she thought, were more gentle and friendly than little boys.

Marion finally decided that she would go to see her mother, so that she could talk to some one. In spite of the fact that she had been interested in all of the things Dorothy had told them, she thought that if she didn't know quite so much she might be less apprehensive these last few days.

She walked the short distance to her mother's house and found her about to have lunch.

"I couldn't stay home alone another minute," Marion said. "I feel as if something were going to happen; I am excited inside of me and little Hiram moves about as if he were anxious to be out in the world to see what is going on. Surely he must be born soon.

"Oh, mother, something is happening. I feel as if he were settling lower down and I suddenly have a terrific backache. I must sit down. I have had a vague feeling of tension all morning and have hoped that perhaps that was a 'premonitory sign' as Dr. Raidon calls such things, but a backache can't be the beginning of labor. Perhaps I walked too much."

"When you were born almost the only pains I had were in my back," replied her mother. "The type of pain varies in different women and this may be the beginning for you. Do you still feel it?"

"No, it has disappeared, and now I feel fine. Do you think it will return?"

"It probably will. Here, have your lunch. It may be fifteen or twenty minutes before you have another pain. We will watch the time to see whether they become regular. I had intended to play bridge this afternoon, but I will ask them to find some one else for a fourth."

"Don't do that, mother. I should probably go home anyhow, and furthermore, we do not know that I am going to have any more symptoms. Maybe this isn't labor at all."

"Perhaps it isn't, but I am going to remain until we know. What kind of a mother would I be to let you go off by yourself? No one would have me for a partner, anyhow, for I could never keep my mind on my cards."

Marion clasped her hands in front of her and leaned over. "If this is autosuggestion simply because it is seventeen minutes since my back hurt me before, I have a strong mind. This one can't be due to walking too far, for it is different from anything I have ever felt before—almost as if my hip bones were being pulled away from my spine."

After a moment she relaxed. "If this is all there is to labor pains, I am not going to mind too much. I wish they would come close together so that I could go to the hospital. Dr. Raidon said to call him when I thought I was in labor and to go to the hospital when the pains came at regular ten minute intervals. Do you suppose we should call him now?"

"No, let's wait and see whether they continue. There is no way of knowing for a while yet whether they are a false alarm or whether by tomorrow I will have a grandchild."

"Do you mean you don't have a grandchild now?" asked Marion. "As far as I am concerned, he will never be more *(Continued on page 56)*

By ROSE LEION

First day in school should be explained in advance so that a child does not feel deserted when his mother leaves him

TOMORROW may be just another day to you, mother, but to Tommy, aged 5 or almost, if tomorrow happens to be School Registration Day, it will be the most important day in his life and instinctively, he knows it. Tomorrow he enters a new, strange world—and the thought of it fills him with varied emotions. If Tommy has been adequately prepared for this momentous occasion, he may be so eager with joyous anticipation that he can hardly wait. Or he may be so overcome with ominous foreboding and dread that he shrinks beneath his covers the evening before wishing tomorrow might never come. He very likely will have horrible nightmares of strange children and a loathsome "teacher" whose physical appearance does not remotely resemble that of a female human being.

How have you, as a parent, prepared your child for this important step? Will this new experience leave a devastating unobliterative scar on his little palpitating heart, or will he climb up life's ladder to promised happiness through growing confidence, new constructive experiences and enriched personality?

That first significant day as those helpless, yes, that is the right word, if you could see some of those little expressions you would agree with me on its choice, dependent, innocent, loved ones step across the threshold into my kindergarten I can tell at a glance, as any kindergarten teacher can, which of my new charges have been properly prepared and fortified for this new encounter.

Mary Ann, one of these lucky youngsters, has a friend, Gloria, with whom she has spent many happy play hours. She knows Gloria will be here too and she steps eagerly, if a little apprehensively into my cheerful room, her large brown eyes desperately sweeping the room in search of Gloria. With a triumphant squeal she finds her and the two little girls in their dainty dresses sit happily together, all smiles. The first and most difficult bridge has been crossed. They have entered a strange room in an alien building full of little "foreigners" yet, in their tightly clasped hands, they have also found familiarity and therefore confidence amid the strangeness. Their crisp new hair ribbons bob recklessly as their eager heads turn rapidly in all directions, to watch the interesting sights, colors, and activities.

Over in a remote corner hunching his tiny body into a little chair, Johnny Smith is trying to make himself even smaller. You can easily see he is literally trying to melt away or make himself invisible. Tears are streaming shamelessly and silently down his wizened, dwarfish features. They are pulled into such an expression of pain and agony that it is almost unbearable to look at him. Johnny is an only child. This would be all right if he played with other

children but he is mother's darling, and she alone takes care of him every single waking hour. The youngsters in his neighborhood are not fit playmates for him, so she thinks. Consequently, he is completely overcome with terror on being thrust abruptly among a multitude of noisy creatures he does not know and whose actions he hardly understands. Furthermore, his only friend, his mother, has deserted him! No wonder he is miserable! I doubt if his mother would recognize the truth if someone were brash and brave enough to tell her—that Johnny has no playmates because mother never wanted to share her child. How many sins I have seen committed in the name of "Mother Love," that when revealed in their proper light are pure unadulterated selfishness!

It will be weeks before Johnny will adjust sufficiently to take part in games and the day he lifts a crayon with his trembling little hand and draws a hesitant line or two on his paper will be a triumphant victory for himself and his teacher. In the ensuing weeks before this great day, Johnny will sit miserably huddled together in his remotely placed chair on the sidelines, wishing with all his throbbing heart he could be a part of the happy group, yet not understanding his great and awful trepidation to do so.

It was not so remarkable that Johnny allowed us to transfer him from his mother's protective arms to that little haven in the corner because Johnny's mother is a dominant, willful character. Johnny is timid and does not easily assert himself. He did not have the spirit nor the daring to make a scene. But Marsha has been allowed selfexpression at home and although also a "protected" child, is bold enough. She will not allow her mother to leave, but clings desperately to her. As we try to lead her away she clutches frantically and wildly at anything, her mother's skirts, my hair, a handy doorknob, kicking and stamping *(Continued on page 52)*

Photo by Harold M. Lambert Studios

SO YOUR DAUGHTER IS

Away at College

IF your daughter has been admitted to college, how can she readily attain maximum personal growth during her first undergraduate year? If she is one of the thousands who have temporarily been refused entrance, owing to the general postwar strain on our nation's educational facilities, can a home program be planned for the waiting period that will develop her potentialities? Increased maturity in personal skills may make her a happier college resident next year. Surveys indicate unprecedented enrolments in both women's colleges and the coeducational universities. With existing resources overtaxed, and many institutions unable, through government regulations, to increase their housing facilities, living quarters may be crowded, dining halls operating at maximum capacity, class rooms, libraries, and laboratories bursting at the seams. Although domestic shortages have eased, reconversion strains are trying the patience of all and adjustments confronting freshmen may prove complex.

Normal individuals are interested in securing and giving affection, in maintaining a sense of permanence within the social groups to which they belong, in achieving a certain degree of similarity to those who surround them, in con-

Social skill proves that the student enjoys the society of a group, and that the group in turn enjoys her society and her various contributions

Sophomore and junior "Big Sister" hostesses can, at simple teas, answer questions readily and give more acceptable advice than can "boring" adults

By MELVA LIND

tributing to the welfare and happiness of their associates and in attaining progressive self-development and selfexpression. The student who spends four undergraduate years in college does not necessarily attain maximum personal adjustment as she develops intellectually. The college adolescent needs expert guidance and stimulation in all phases of education, including that of social development.

Adjustment is an everchanging process. Although permanent and perfect adaptation to the environment is never realized, an individual can develop increasing facility in meeting new situations that would originally have taxed her ability, through the process of progressing from the known to the unknown, through analyzing her weakness and strength, through developing alertness to changing social conditions, through acquiring as many social skills as possible and through applying these skills to the new situation.

Consider the problems faced by a freshman in her first semester. Whether she comes from a country village or a metropolitan area, everything contributes to her bewilderment: the large campus, endless procession of new faces, formal residence halls or scattered cottages and the academic and business buildings. She has met some of the administration and their secretaries. Somewhat subdued by the omnipresence of unknown faculty and staff members, she feels lost in a multiplicity of clubs, organizations and councils.

Nowhere is there a person who knows her as a complete individual. The admissions bureau possesses certain facts about her, as does the registrar, the college physician, and the dean of women. Her head of house, though cordial, is a stranger. It is a rare occurrence when these specialists are in a position to consider the freshman in all her aspects.

Away from home, family and intimate companions, she finds herself in a different atmosphere. She is seeking potential friends, distressed by the thought that she may not attract those who seem desirable to her.

The close supervision to which the student has been accustomed throughout the day in regard to rising, dressing, eating, sleeping, keeping appointments, exercising, etc., has suddenly been withdrawn. The pleasure that she had anticipated accompanying this release from supervision is mixed with burdensome responsibility.

The drill and definite tasks of high school days are no longer emphasized. Relieved of the required study periods at stated times that she has known in the past, she revels in this new comparative free- *(Continued on page 69)*

Hope for Tired Minds

Photo by Cosmas V. Cosmades

Administration building of the McLean Hospital in Waverly, Mass., where the author of this article spent years recovering from a mental breakdown

By FRANK W. KIMBALL

MEALS and the arrival of daily newspapers were definite functions I looked forward to. As I walked along familiar streets, I remember now that I seemed to be in a sort of vacuum and was always apprehensive of meeting acquaintances. When alone I did not dare answer the phone. Books had not regained their appeal; during the final weeks at the hospital I had wearied of reading and doing the book reviews for the magazine.

Gradually I resumed my reading and later in the year became an outside contributor to the magazine again. After a few weeks I began to adjust more rapidly. Old friends and relatives called; they told my wife that I appeared like my old self.

A desire came over me eventually to revisit my haunts on the hill at Waverley. How different the place looked! I experienced none of the old aversion at the sight of the familiar buildings, nor did I dread meeting anybody! I met Dr. Tillotson, chief psychiatrist, as I arrived, and was not only not afraid of him, but a bit amused as I saw he did not seem to know quite how to take the silent fellow he had known so long, now articulate. Balaam could not have been more surprised when his dumb, four legged, long eared companion suddenly turned conversational.

Even more remarkable, I soon found myself in the library, sitting between Miss Collins and her assistant, showing them home pictures and chatting with real ease.

That was the start of frequent informal visits to McLean, where I feel as thoroughly at home as any "old grad." I read, help pass on and review many library books and contribute to the magazine.

I have written travel notes and other articles for the Dedham Transcript, that have been well received, and also letters to Boston papers. When I recall what a plodding writer I was, I bless the people and events that helped me along the road to self expression.

During my hospital years, except for solitary listening to the radio, I was allergic to my old

love, music. I hardly touched the piano and at home could not bring myself to play it for some time. One day the urge "just came," and music, for two and four hands, is now a constant source of pleasure. I think my technic and faculty of interpretation have improved, too. As an organist, I have substituted in local churches many times with confidence.

During my illness I found attending church was a severe trial. One Sunday in Dedham in church, Edith, feeling that my willingness to attend was a hopeful sign, yet seeing that I looked pretty somber, whispered, "See if you can't be as happy as I am."

"How utterly impossible and preposterous," I thought.

When Edith handed me her envelope to put in the plate, I ignored her gesture and the plate went by. This was too much for Ken, my nurse. "What is the matter with you?" he muttered.

Waking early one Sunday morning after I had

Bookplate for the Isabel Collins Music Alcove established by Mr. Kimball at McLean in appreciation of librarian Miss Collins' helpfulness

come home to stay, a strange feeling came on me, dropping, as it were, from the sky. "Why," I found myself thinking, "I'm going to church today, of course."

At breakfast I said, "What time do we start for church?"

My wife quietly answered, "Oh, at about a quarter of eleven."

It proved to be old home week all right and for the first time in nearly twenty years the service was a rich experience.

Old Boston University friends came in due time to see me. Renewal of intimate associations was a delight to my hungry soul. One fall day, President Marsh called. But, I was not prepared for the word he brought that in a day or two I was to be elected again a member of the board of trustees of the university and that my wife and I would be desired to participate in the annual trustees' reception for members of the university faculties. This meant receiving several hundred men and women, most of them strangers, and trying to say something not too banal to each. I came through it comfortably and decided I really had my social as well as my physical sea legs in good shape.

The desire for travel broke out before the year was over. My first trip alone—from Dedham to Waverley—was a forward step. Its many changes might be thought tiresome, even formidable, by accustomed travelers. To me, who for years had scarcely ever boarded a public conveyance, nor had any money in my pockets, to go alone, negotiate transfers, subterranean passages, escalators and ramps—simple, do you say?—this had the novelty and excitement that ordinarily comes only as we pass through youth.

A longer journey encouraged me considerably. We were at the Cape for the Fourth and I returned home on a holiday jammed train. I stood from 10 to 2 and then took the El and bus to Dedham. This may not seem important now, but the family tells me they date my restoration to reasonable self confidence from the day of that jam session on the "New Haven."

A long repressed desire in the fall of 1943 sent me to California to see my eldest daughter. It meant a lot that I could take the transcontinental journey so easily alone, to the little city of Ferndale near the Oregon line, the last part by bus over the breathlessly beautiful Redwood Highway. What a thrill as I dropped off the bus literally into the arms of a welcoming delegation led by Harriet, my daughter, and her husband! Was I really the fellow who had dourly refused to see them the time they came to the hospital? With them were the three Western grandchildren, they, like the other five, strangers to me—Billy, 16, Alice, 14 and 10 year old Frank. The days flew by in that happy, lively family. I surprised myself one day by giving Bill's high school pupils a piano recital! Good or poor, it marked another gain in self confidence.

During my Ferndale stay, something happened that I thought little short of dramatic. My third daughter became engaged and because of her fiance's impending transfer overseas, they were married in my absence. In her letter to me, Edith May suggested that we might play the wedding march at the appointed hour, despite the 3,000 miles of separation. So, precisely at 1 o'clock, Pacific Time, February 1, 1944, almost within sound of the breakers at Cape Mendocino, Harriet with her violin and I at the piano fulfilled our appointed function. Too bad it couldn't have been transmitted!

Returning I stopped in Ohio and New York to meet scores of old and new friends. For variety and excitement, I flew from New York to Boston, my maiden air trip. Coast to coast and return, I never had the least anxiety or difficulty.

My job as grandfather was now developing apace. My next-door son's 3 year old Joy had proved all that her name implied, though her baby sister I merely had looked at; and certainly I had become a personality to the California youngsters. There were yet three more for me to meet.

My second daughter, *(Continued on page 64)*

By J. V. SHEPPARD

FROSTBITE—

DON'T look now, but that pop you just heard was another myth exploding—a myth about frostbite. Maybe it was that fiction about rubbing snow on a frozen ear to thaw it out; or that one about frozen tissues being abnormally fragile; or even that old fantasy about frostbite occurring only at freezing temperatures.

Research into the cause, effects and prevention of frostbite swung into high gear at the beginning of the war. The first B-17 crews flying over Germany came back with hands crippled by an enemy more accurate and almost more invincible than the Germans: that enemy was cold. For awhile it was putting more men out of commission than all the anti-aircraft piled together. Many flyers were disabled for months or permanently grounded because of frostbite injuries. Temperatures of 20° to 30° below zero at high altitudes froze unprotected hands in minutes. Removing a glove to "strip a gun" more conveniently, men found their fingers frozen waxy white and solid as a rock.

The enemy, cold, was licked by a combination of tactics: use of warmer clothing, precaution against wearing wet clothing and intensive training to impress men with the dangers of cold.

The many B-17 crews that returned to their bases crippled by the bitter cold threw frostbite research into high gear

The war proved a number of things about frostbite. First to be dispelled was that fiction about frostbite occurring only at freezing temperatures. Hundreds of civilians who wore wet shoes while sitting all night in air raid shelters turned up with tissue damages similar in every respect to frostbite acquired at freezing temperatures. The old-fashioned "trench foot" of the last war was now recognized to be none other than our old enemy, frostbite. It was renamed "immersion foot" because it was no longer confined to fighting men. It can occur at temperatures above freezing if the feet are wet. Since water conducts heat away from the skin faster than air, it chills the tissues to a dangerous degree. While temperatures of 50° to 70° F. are far from severe, they are so much lower than body temperature (98.6° F.) that exposed tissues are readily damaged.

Wind, like water, is also a thief of body heat. When high winds are on the tear, frostbite will occur more rapidly than at the same temperature with no wind. In New York City, snow handlers complain more frequently of frostbite on windy days.

Remember when you were a child and it was commonly believed that frozen ears and fingers should be rubbed with snow to thaw them out? It took a lot of research to lay that old fiction to rest.

Russian scientists, who did considerable research on frostbite during the war, discovered that water in body tissues does not turn into ice crystals before frostbite occurs. Since the tissues are not really frozen to begin with, it is illogical to subject them to further chilling by dunking them in ice water. If the method seems to work now and again, it is probably in spite of and not because of this drastic treatment. The consensus arrived at by many doctors working in many countries, is that cold damaged tissues should be warmed gradually. Too much cold only causes further injury: too much heat causes a sudden rush of blood into the part with resulting congestion and blistering. Several doctors, including Dr. J. L. Southworth, Surgeon of the United States Public Health Service, have reported good results from cooling frostbitten feet with air from a fan blowing over ice blocks.

Dr. Loyal Davis, of the Army Medical Corps, decided to make a comparative test of the two methods of rapid warming and prolonged cooling of frostbite injuries. He selected one group of flyers with frozen hands and kept their hands at low temperatures in a refrigerating unit for one to two days. Another group was brought immediately into room temperatures. The group treated with cold complained of more pain and suffered more tissue loss: the group at room temperature had more blistering.

Some inquisitive Russian scientists undertook to find out whether frozen tissues are more fragile than normal tissues. They froze several frogs until they were hard as rocks, then they dropped them on the floor. Since they did not shatter when they landed, it seems reasonable that frozen tissues are not abnormally brittle. The experiment is not recommended for use on human tissues.

Facts and Fictions

Another fiction about frostbite went up the flue with the work of Drs. Kurt Lang and L. J. Boyd of the New York Medical College. They did a neat job of disproving the belief that frostbite damage is due to solidification of tissues. Actually, a hand can be frozen solid for a short time and thawed out with no serious results. The real damage occurs during a stage of inflammation that occurs after thawing. Several unsuspecting rabbits were indispensable in proving this point. Each rabbit was shaved clean over the abdomen and a beaker of dry ice was held against the shaved area for five to ninety minutes. Into the blood stream of each rabbit was then injected a fluorescent dye, fluorescein. The rabbits were taken into a dark room and the skin was exposed to a beam of ultraviolet light that caused the dye to fluoresce, thus making it possible to trace the circulation. The doctors saw just what they suspected: blood circulation in the frozen area had ceased entirely as shown by the absence of fluorescein. All other areas of the rabbits glowed a nice yellow-green because of the dye flowing in the blood stream.

Tests were continued at frequent intervals and revealed more interesting facts. The circulation remained blocked for one-half to two hours. Then it returned with a vengeance. There was a vigorous rush of blood into the affected part as shown by the increased amount of fluorescein in the area. This state of congestion lasted for six to sixteen hours and then the circulation stopped again.

Real injury of frostbite occurs during this stage of inflammation. The walls of microscopically small blood capillaries in the tissues are damaged by cold. When the blood tries to flow back into these capillaries, they can no longer hold it. Blood plasma leaks through the walls into the surrounding tissues. Blood cells left behind pile up in the capillaries and further block the circulation. With the blood supply cut off, tissues die from lack of oxygen and gangrene may result. *(Continued on page 77)*

I'm Just a Normal Child

Johnny Jones has lost a leg,
Fanny's deaf and dumb,
Marie has epileptic fits,
Tom's eyes are on the bum.

Sadie stutters when she talks,
Mabel has T.B.,
Morris is a splendid case
Of imbecility.

Billy Brown's a truant,
And Harold is a thief,
Teddy's parents gave him dope,
And so he came to grief.

Gwendolin's a millionaire,
Jerald is a fool;
So every one of these darned kids
Goes to a special school.

They've specially nice teachers,
And special things to wear,
And special time to play in,
And a special kind of air.

They've special lunches right in school,
While I—it makes me wild!—
I haven't any specialties,
I'm just a normal child.

American School Board Journal

IN a typical school district, at least ten children out of one hundred are "exceptional" in some way. For example, approximately three are mentally retarded, one is physically handicapped, one undernourished or tubercular, one has a weak heart, three have speech defects and one has superior intelligence. These children are "exceptional," as they deviate from the normal to such an extent that they require special training in their course of study, if they are to receive the same educational opportunities afforded their classmates.

In addition to this 10 per cent of the school population, there are thousands of children who have reading defects or are delinquent. They are also "exceptional" and they, too, require special training in their course of study. However, this discussion will be limited to defined mental and physical exceptionality. In the case of reading and speech defects and delinquency, mental or physical defects may be causative factors, but are not necessarily as defined as they are in mental retardation, visual and auditory defects and crippling conditions. These latter types of exceptionality will serve as illustrative material for this article.

Until psychologists and educators began to study "exceptional" children, they were pitied or, in the case of the superior, completely ignored. Today schools and parents are cooperating to make their school and home life a normal one. Instead of being pitied, they are now to be envied, for they receive the best education under expert guidance. Now it is the normal child who is to be pitied, for he receives only a normal education. We have "specially nice teachers," special books and special classrooms for these "exceptional" children; even a "special kind of air" for the tubercular child.

Before summarizing what parents and schools can do to help these children lead normal lives, it is well to consider what is meant by an Intelligence Quotient or IQ, since the psychologist's first role in the study of a child is to measure the child's mental level. The IQ is a term used by every one, but a request for a definition results in as many different definitions as there are definers. One of the surprises of a well known radio quiz program occurred when a listener asked: "What is the average blood pressure, average pulse rate and average IQ?" The first two answers were easy, but the answer to the third was for posterity most alarming. The panel member, who fouled this one on his third strike, answered that the average IQ was 50. That would make us a definitely feebleminded democracy, in a word, imbeciles.

This is not an unusual misconception of the average IQ, since we usually think of 100 as perfection and 50 would logically be the middle or average. Unfortunately IQ's are not logical but statistical. An IQ is a ratio between an individual's actual and his mental age. If they are the same, that is, if he is average, his IQ would be 100. If his mental age or maturity is half of what his actual age is, his IQ would be

only 50. For example, a boy of 14 with an IQ of 50 would have a mental age of only 7. Although he has lived long enough to be in the ninth grade, his 7 year old mind would permit him to handle only second grade work. That is exactly where the problem of mental retardation originates; namely, in expecting a child, whose mental growth has not kept up with his physical growth, to meet the same educational standards as required of other children of his physical maturity. The IQ is actually a statistical summary of an individual's rate of learning. If his IQ is 120 or better, he is a rapid learner; if around 100, he is average in the speed with which he learns; if around 80 or poorer, he is a retarded learner.

The IQ tells only part of the story. The child's mental age tells us more of what to expect of him in school. Specifically, it tells us what school grade he should be able to handle. In a typical classroom, we may expect to find three individuals with IQ's of 80, 100 and 120, all of the same physical age, for example, 12; and all in the seventh grade. The child with the average IQ would have a mental age of 12 and would

Pity the Normal Child

By CHARLES M. MORRIS

find the seventh grade stimulating. The child with the 120 IQ, the fast learner, would have a mental age of almost 14½ and could probably handle the work of the ninth grade; while the retarded child, with the IQ of 80, would have the mind of only a 10 year old and would be only fifth grade caliber. Yet, all of these children are expected to meet the same standards for promotion. The fast learner absorbs facts with a minimum of effort, has the best grades and becomes mentally lazy because not enough is expected of him; the retarded learner works the hardest for what he gets, invariably puts forth all the effort of which he is capable and, as a reward for his industry, fails and has to repeat the grade.

This situation may be termed the "survival of the fittest" in modern education and this is where the psychologist rescues the mentally retarded. It is not a glamorous rescue and usually it is a hard one, for parents of mentally retarded children, like all parents, do not want to admit that their child is different. When parents have accepted the fact that their child is retarded, parents, teacher and psychologist plan their strategy. If there is a special class for mentally retarded children in the school district, the course is easy, for the child merely enters the special class and soon finds it "fun." He learns how to read, to make change, write letters, use his hands and how to live. For the first time in his life he has the feeling of success and the satisfaction that comes from just reward for sincere effort.

If a special class is not available, he remains with his age group as far as it is feasible to do so and the curriculum is adjusted to his limitations. As far as time will permit, his regular classroom teacher gives him the same training as a special teacher. He learns arithmetic by changing money. It is better for his later life for him to learn that 5 cents and 5 cents are 10 cents than it is for him to learn that 5 and 5 are 10. In grammar and composition, it is better for him to learn to write letters than to write a theme on "communism." Reading will also be directed along practical lines—learning words that will keep him out of trouble, e. g., danger, stop, go, poison, men's room and learning to read street signs, time tables, menus learning to tell time and any other reading activities that will help him lead a normal life and become a better citizen. He receives not only individual instruction, but also a practical education. He is not to be pitied for receiving what the normal child wants and doesn't always obtain.

The meaning of the technical term, "mentally retarded," that the layman generally implies in speaking of the "backward child," refers to a child whose IQ is around 80 down to 50. The admission standards to a special class for retarded children varies somewhat in different states. In Pennsylvania, for example, only children whose Intelligence Quotients are between 50 and 80 or 85 are admitted to a special class. These are mentally retarded children, not the child who fails because of inattention, ill health or for some other psychologic or physical reason. Sometimes the term "slow learner" is used. This, however, generally refers to the child who is below normal in intelligence, but is not so slow that he is considered mentally retarded in the technical sense. If he is just slow, and not mentally retarded, the special class is not for him. Nor is the special class a place for the child with an IQ below *(Continued on page 48)*

Dividends from the Quest for Health

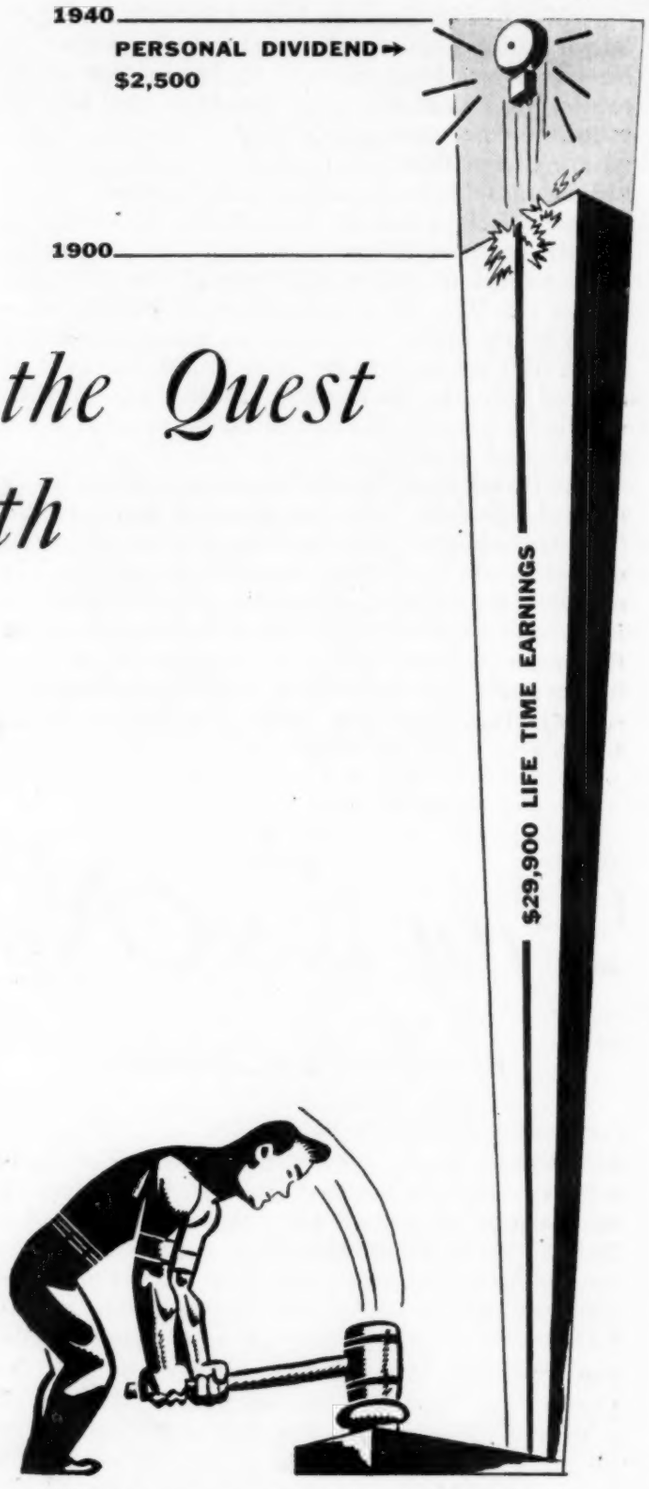
By FRANK G. DICKINSON
Economist and Statistician of the American Medical Association

AS AN ECONOMIST I can agree with John Ruskin: "There is no wealth but life." Fundamental is the wish of the human being to avoid death; survival is still the first law of life. How wealthy are we according to Ruskin's definition? The statisticians of the Metropolitan Life Insurance Company (Statistical Bulletin, September, 1946) have provided estimates of the economic value of living longer.

An average young man, 20 years old, earning $1,250 yearly in 1900 could have valued his lifetime earnings at $27,400 (discounted at the rate of 2½ per cent per annum). In 1940 a similar person could place a value of $29,900 on his prospective lifetime earnings. The prospect of an extra $2,500 would be his personal dividend from a longer working lifetime.

The young man of 1900 might very likely have died from tuberculosis but modern medicine, better and more food, better housing, X-rays, a modern sanatorium and modern drugs would enable the vast majority of young men in 1940 to be free from anxiety regarding such a fate.

A man, or woman, aged 35, earning $2,470 in 1900, could have placed a value of $25,000 on his prospective lifetime earnings (discounted at 2½ per cent per annum); a person of the same age in 1940 would value his future earnings at $26,200, a gain of $1,200. Death due to pneumonia might have stopped the earning period of this man or woman, aged 35 in 1900, but better hospitals, diagnosis and nursing, the discovery of sulfa drugs and penicillin, will prolong the earning period for a worker who attained age 35 in 1940. The gains in lifetime earnings for



In 1940 the average 20 year old man, earning $1,250 annually, could place his lifetime earnings at $29,900. His personal dividend would be $2,500 due to a longer working lifetime

Age	*Annual Earnings*	*Gains from Longer Life*
20	$1,250	$2,500
25	1,975	2,200
30	2,370	1,800
35	2,470	1,200
40	2,500	800
45	2,470	300
50	2,405	—

those receiving stipulated annual rates of pay are shown in the table.

The quest for health is expensive. How much can we afford to pay in order to add $2,500 and $1,200 to lifetime earnings of two workers, aged 20 and 35? How much are we now paying for all types of health work? Now that these gains from longer life have been given an economic value in dollars we can review this never-ending quest for health serenely confident that health work pays most, all, or more than it costs. Let us glance back over the centuries to see how far this quest has gone in terms, not of dollars, but of average age at death—another name for life expectancy at birth.

The human race has come a long way since the heyday of the Roman Empire. Students of the life and culture of ancient Rome have examined the tombstones of the upper class Romans and concluded that they probably had an average lifetime of not more than 25 years. Life expectancy at birth for an upper class Roman was about a quarter of a century. An old Roman, statistically speaking, was someone 35 or 40 years of age.

Gains from longer life, evaluated in dollars, show that health work pays almost more than it costs

The record is not clear for a number of centuries. In Breslau (Germany) in 1691 an astronomer and mathematician named Halley prepared a crude mortality table showing that the average expectation of life at birth was about 33 years. This figure is about eight years higher than that for the upper class Romans, not a great gain to make in fifteen to eighteen centuries.

Now skip the intervening years and look at the United States in 1900. A white child born in 1900 had a life expectancy of 49 years. This is a gain of 16 years over the 33 years calculated by Halley two centuries before. Civilization and man's environment had undergone a revolution in the intervening years. Consider next the quest for longer life during the first 45 years of the twentieth century in the United States. Life expectancy at birth is now approximately 65 years, another gain of sixteen years, but in a period of only forty-five years instead of two centuries. Furthermore, the second sixteen years was a lot harder than the first sixteen years. It is easier to prolong the life of an adolescent, than it is to prolong the life of an adult man or woman. Each additional increase in life expectancy is a greater accomplishment. Most of this gain is really in allowing children to attain their majority rather than in allowing middle-aged and old people to live longer.

The accomplishments in this century in the United States are, therefore, as great as those achieved since the fall of the Roman Empire.

We do not have a comprehensive measure of social progress, for social progress is the composite of a vast array of individual accomplishments. Yet these separate accomplishments have influenced the figures on life expectancy in every generation. These gains in life expectancy, therefore, do come close to providing a comprehensive index of social progress. We can then say that the social progress experienced thus far in the twentieth century in the United States is as great, if not greater than, the sum total of social progress since the heyday of the Roman Empire.

Although our figures measure only the economic value of lower mortality since 1900 in the United States, the increases in life expectancy in earlier centuries and among the people of other nations have had economic values even if the records do not permit a definite estimate in dollars. Does health work pay for itself in greater lifetime earnings? The cost of the quest for health during all these centuries cannot even be estimated. The thought that it has paid its way satisfies the economist more completely than Ruskin's timeless observation that "there is no wealth but life." Yet it must be granted that only you can measure the value of another year or two of life for yourself and it may seem somewhat meaningless to attempt an estimate in dollars, particularly if you have retired from active work. But statisticians will, no doubt, pursue this point further until they can some day tell you how much an operation is worth to you if it enables you to work two, three, four or five years longer.

It would be difficult to list all the expenditures made by society in the attainment of longer life. Most people think modern hospital costs heads the list. Think also of the quest for better and more food; that includes the efforts to develop better pure food and drug laws, the work in the many branches of agriculture and chemistry to improve our food and in the study of nutrition and related subjects. Longer life results in part from better and safer housing. Here we find that we are indebted to the construction industry, the fire insurance companies, those who set up the building codes for our cities, engineering research of many types and kinds, and doubtless many other related groups. After food and shelter comes clothing with its contribution to longer life and all the people who are engaged in creating and producing better clothing adapted to our changing environment are engaged in this quest for health.

Far forward in the vanguard of those engaged in this quest for health are the life insurance companies; not only in their medical examinations, in their health education work, but in the provision for dependents, they have made a great contribution. In providing annuities they have undoubtedly added to the life expectancy of older people who know that they can not outlive their income from the annuities. The pensions provided by the Social Security Act will doubtless prolong life after retirement.

In this quest the peo- *(Continued on page 72)*

So You've had an

By HAROLD D. KAUTZ

Blue Cross Plans Photo

THE surgical operation is no longer the hazardous, painful performance that it used to be. Before the establishment of surgical anesthesia by Morton in 1846 and of methods begun by Joseph Lister in 1867 to avoid contamination of surgical wounds, an operation was an ordeal to the patient and surgeon. An amputation in those days was a heroic procedure without the benefit of present day medical and surgical knowledge.

In the early part of the nineteenth century, speed and dexterity were the prime attributes of the surgeon. More often than not an operation was a race in which the surgeon's knife was pitted against the fortitude of those who required his services and the assistants who held the patient. Under such circumstances the surgeon could not exercise the care and delicacy necessary to avoid damage to healthy structures and to control bleeding. Thanks to anesthesia, the operator can now proceed with discretion and deliberation. The patient sleeps or rests comfortably throughout the operation, and the relaxation induced by the anesthetic enables the surgeon to obtain better exposure of the diseased part. This permits refinements of technic that were formerly sacrificed to speed.

Even when the surgical patient survived the horror of an operation performed without anesthesia, infection was almost sure to follow. Indeed, it was invariably expected by all

Modern Hospital Photo

surgeons. Without knowledge of the means to prevent it, they could only hope for what was called "laudable pus," a thick creamy discharge from the wound associated with infection due to the then unknown germ, staphylococcus; an infection that generally did not spread and usually subsided without endangering the patient's life. They learned to fear, without knowing why, the less commonly observed thin, watery, often blood-tinged discharge from wounds due to the more serious streptococcus infection.

With the advancement of the germ theory of infection by Louis Pasteur and the demonstration by Semmelweis that the occurrence of "childbed fever" (a serious streptococcus infection of the womb after childbirth) could be reduced by washing the hands and sterilizing the instruments before delivery, a knowledge of the means to prevent infection during operations was gradually developed. This led to the modern sterile surgical procedure. By strict observance of sterile precautions, adequate preparatory cleansing and the use of disinfectants, infection (not already present) is no longer the rule, but the exception, after surgical operation. The elimination of operative infections helps wounds heal rapidly by what the surgeon calls "first intention;" that is, the edges unite directly without the formation of a large amount of "proud flesh" between them.

Development of anesthesia and antisepsis thus allayed the greatest fears of the patient and surgeon. Operations once considered impossible, came to be used in the treatment of many diseases. Whereas formerly operations were restricted to dire emergencies, they are now employed with relative safety in the treatment of chronic as well as acute ailments. Surgical operation has come to be recognized as often the best, and sometimes the only, effective treatment of certain conditions. Experience has shown the diseases that will be benefited by an operation and those in which medicine or physical mea-

sures are the best remedy. So precise has this knowledge become that diseases are sometimes classified as either medical or surgical according to the treatment that will give best results.

Surgical operation is restricted not only to definite diseases in which it is known to be of value, but also to the type of patient that can undergo this form of treatment. With a surgical disease the patient's age, weight and general physical condition come under the judgment of the physician and surgeon before the decision to operate is made. The type of operation to be performed and the choice of anesthetic to be used must be selected in accordance with the needs and the condition of the patient. Often these factors must be carefully weighed with the known benefits of an operation, before it can be recommended as a form of treatment. In this selection and in the preparation and after-care of the surgical patient, great advances have been

Operation

Wallace W. Kirkland Photo

made in surgery of recent years. As one surgeon has aptly said, "Surgery has been made safe for the patient; we must now make the patient safe for surgery."

Before an operation is performed today, the patient is carefully examined to determine the need. Then come blood tests to determine if there is anemia and if clotting will be normal so that hemorrhage does not follow. The patient's blood type is determined so that if transfusions are or will be necessary, suitable donors can be found beforehand. These and other tests are made to determine what preliminary treatment is needed to put the patient in the best possible condition for operation. Often a long period of treatment with medicine is necessary before a patient can be safely operated on. The patient is prepared specifically in advance so that operative complications can be eliminated or minimized. At the hospital the patient may be encouraged to take liquids freely the day before the operation because the surgeon realizes that these will be depleted or will not be retained in normal

Torkel Korling Photo

amounts after certain operations. Medicine may be given that will reduce the amount of anesthetic used or to allay nervousness of the patient on the way to the operating room. During the operation everything for the safety of the patient is carefully provided.

Equally important, yet often misunderstood by well meaning relatives or friends, is the care and supervision of convalescence that is given the surgical patient after operation. From the moment the last suture (stitch) or clamp is in place and the first dressings applied, the complete and uneventful recovery of the patient from the anesthesia and the operation is the prime purpose of the surgeon and his hospital staff. The reasons behind certain procedures are often lost on well-intentioned visitors who may impose seemingly helpful suggestions based on their own or the experiences of acquaintances that have undergone a similar operation. Such advice more often than not cannot be applied to another case, despite its apparent similarity. Frequently it may be harmful and may delay convalescence. Certainly a convalescent surgical patient is not one whom visitors should regale with depressing accounts of complications about which they have heard.

Offering the bed patient various forms of harmful refreshment is one of the commonest ways in which visitors "interfere" with convalescence. Amazingly enough much of this is done in ignorance of prominently posted or circulated hospital instructions to the contrary. Infraction of rules concerning visiting hours often unnecessarily fatigues the patient. These and other thoughtless or well meant deviations from the orders of the attending surgeon and nursing staff may sometimes lead to serious consequences. Cooperative visitors can be beneficial, but only when desired by the patient or the immediate family, at the proper time, and in accordance with the instructions of the surgeon and hospital rules!

Blue Cross Plans Photo

A convalescent surgical patient will do well to ignore all advice that does not come from either the surgeon, the staff physician or the nurse while at the hospital, and the family physician, on returning home. Certain instructions of the surgeon to be

(Continued on page 79)

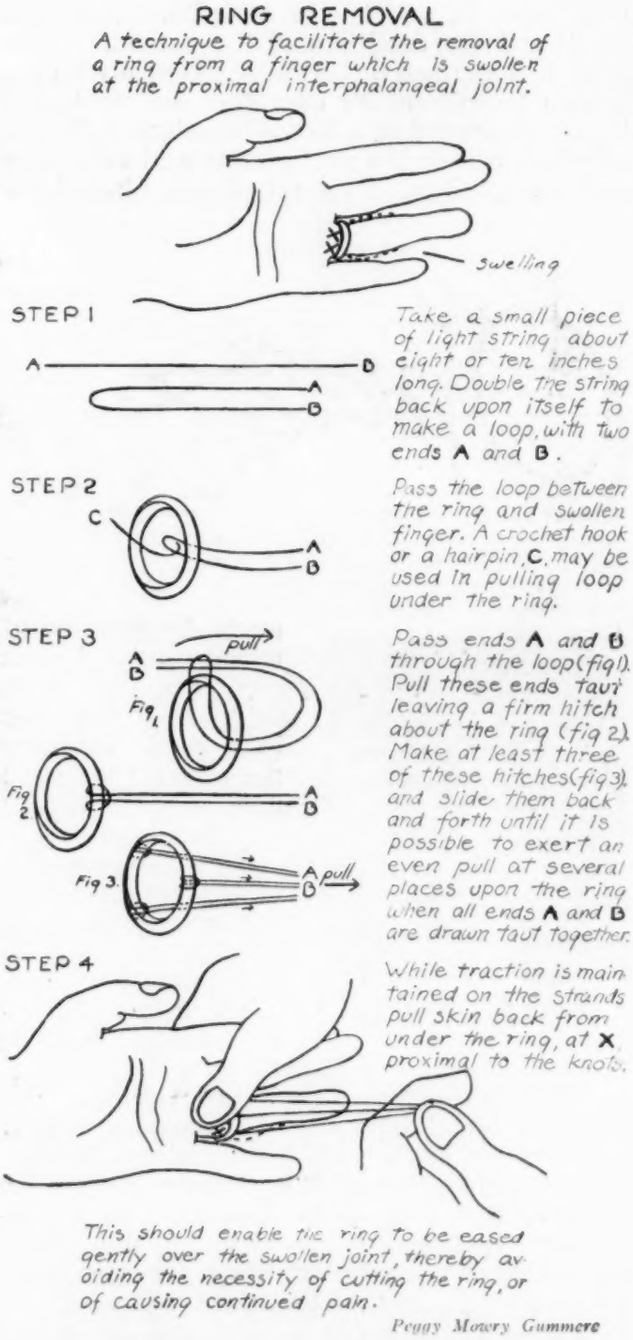
By HILBERT F. DAY

Finger-Ring Removal

REMOVAL of a ring may be essential for the saving of a finger or if the wearer is a doctor or nurse and has to help in a surgical operation where proper cleaning of the hands is demanded. When not in a hurry, the ring wearer tries soaping the finger and pulling at it with the other hand. He may even put his finger in his mouth and attempt to remove the ring with his teeth. After several unsuccessful attempts, the finger reacts by swelling and makes the removal more difficult. Next step is to seek a doctor's aid. I have been consulted many times in such a situation, either at my office or in the hospital.

Where finger vitality is endangered, the ring can be removed by cutting it with a gigli saw or any sharp instrument such as a rib cutter. Then the ring may be grasped on either side of the cut by strong forceps and straightened until it comes off easily. To illustrate this, I would like to describe one of my cases. In the summer of 1944, in the late evening, a young woman came to my house requesting help. Three days before she had been stung on her ring finger that had begun to swell. She and her family had tried unsuccessfully to remove her ring. When I saw her, there was a great deal of swelling and the ring had stopped the circulation. I did not have the proper cutting instruments at home, so I took the patient to a medical instrument manufacturer, where the night superintendent cut through the ring with a gigli saw and easily removed it. (Later a jeweler repaired it perfectly.) In two or three days the circulation of the finger was normal.

Since that time, I have devised a means of removing a ring in nonsurgical cases that some doctors and laity have found useful. By following the directions shown in these illustrations, it is possible to pull steadily on the ring while the skin proximal to the ring is pulled upward and remove it quickly and easily.



Practically everyone has experienced difficulty in removing a finger-ring. Next time, before getting panicky, try this method of removal

Fellow with a Future!

Here's a baby with a headstart to health. He'll keep on growing rapidly in stature and strength, too, on a steady diet of White House Milk. Yes, creamy-rich White House supplies each essential nutrient of fresh milk. It's easily digested, and it's fortified with vitamin D_3—the "sunshine" vitamin—that helps build strong bones and teeth. For baby, for family—there's none better!

WHITE HOUSE MILK

There's None Better

400 U.S.P. UNITS OF VITAMIN D_3 PER PINT

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NOT CONNECTED WITH ANY COMPANY USING A SIMILAR NAME OR BRAND

"Oh I'm so Tired..."

Women Should Look Carefully Into The Problem of ***FATIGUE***

Unusual or long-continued fatigue can be a dangerous symptom that no foundation garment, even the most scientific, can relieve. See your doctor. Only he can tell you what is wrong and what to do.

But very often simple posture faults cause fatigue. These faults not only spoil appearance and grace but also steal energy. Your bone framework with the pelvis as its base is supposed to carry your body weight with the least muscular effort. Poor posture often gives the muscles too much of the load resulting in strain and backache. With the body "out of line" cramped internal organs do not function as well as they might. Blood supply is subject to interference. Digestion and breathing may be impaired. It all contributes to that "tired feeling."

CAMP Scientific Supports can Help You do MORE WORK with LESS FATIGUE

When fatigue is due to routine posture faults, CAMP SCIENTIFIC SUPPORTS often help. They have a unique system of adjustment about the pelvis which helps hold you in truer anatomical alignment for more grace, comfort and energy.

Authorized Service CAMP Scientific Supports

LOOK FOR this Camp Authorized Service Symbol at good stores everywhere. Expert, professionally-trained fitters are in attendance. Remember—Camp Scientific Supports are never sold by door-to-door canvassers. Camp garments are light, comfortable and easily laundered. Priced moderately.

S. H. CAMP and COMPANY, Jackson, Michigan
World's Largest Manufacturers of Scientific Supports.

Pity the Normal Child

(Continued from page 41)

50 for he usually does not attend school as he cannot learn even first grade work.

Parents of a mentally retarded child who is in a special class are advised not to expect any more of him at home than is now expected at school. They are cautioned not to "be at him" for his former school deficiencies, but to build up his ego at home by complimenting him on the things that he can do well, whether it is model building, sports, doing chores or running errands. He is aware of what he doesn't do well. What he hasn't been told are the things he does do well.

This, then, is the role of the psychologist. He studies the child, in order that parents and teacher may see the child in his true perspective and work together at school and at home. Mentally retarded children receive the most attention at present, not because there are more of them, but because they retard normal class progress more than other types of exceptional children. As a result of retardation, they often become behavior problems and because they make the biggest commotion, their "wheels squeak the loudest and they get the grease." The other seven members of the exceptional team of ten also need plenty of grease, and they are studied in the same way.

The blind child probably receives more of our pity than any other type of exceptional child and because of our pity he is forced to lead the least normal life of the physically handicapped. We still seem to visualize the blind person standing on a street corner armed with tin cup and weather beaten pencils. Fortunately, this is the exception today. While we think of a blind person as helpless, he is only helpless because we make him so. When a blind person wants to cross a crowded street, what do we do? Invariably we grab his arm and literally push him across. What he would like to do is take our arm, in the same way as a woman takes her escort's arm. None of us like to be pushed. To give us too much help only serves to make us feel helpless. To a blind person, it makes him feel blind when he wants to feel normal. We even hesitate to say "hello" to a blind person or to shake his hand. If we want a blind friend to see a new hat or a new suit we say "feel" this, instead of saying "see this." In order to see it, he will feel it, but he doesn't like to be told to feel it. When one blind person wants another blind person to feel something, he says "see it." Feeling is their way of seeing. We can help them to see by treating them as normal persons with certain minor allowances for their limitations, not by making them helpless objects of misplaced pity.

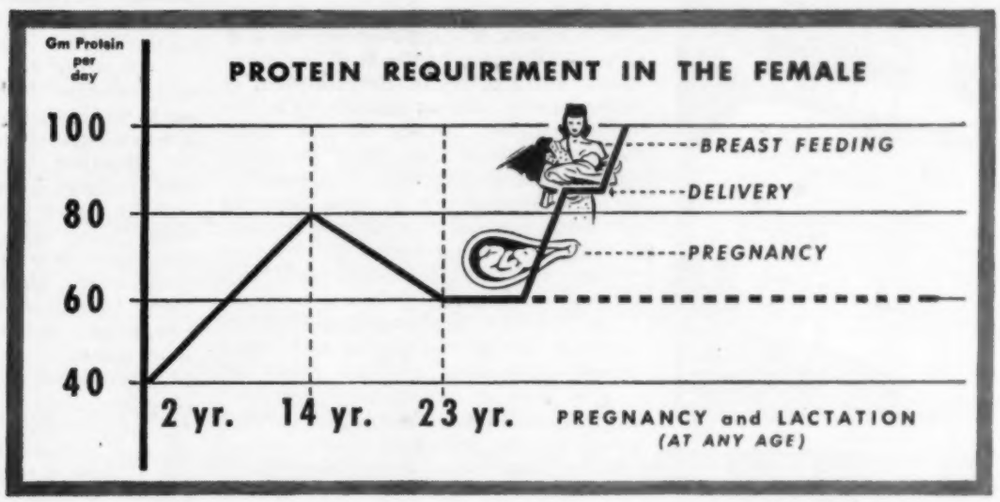
Pity for physically handicapped children and adults has been the beginning of many a life of dependence and helplessness. This can be prevented in the same way as in the case of the blind. A crippled, deaf or blind child is too often made the center of the home. The home is forced to revolve about them, making them more and more conscious of their limitations. If they are to be truly happy in this world, they must learn that the world does not revolve about them. It has been suggested that parents of a physically handicapped child should plan to have at least eight children. This is not to be taken literally but if we think of the handicapped child as one of eight healthy normal children, he will have the best chance of being one of those eight healthy normal children.

When we think of a physically handicapped child as an isolated helpless child who must receive all our attention, he is lost psychologically. No allowances should be made for his temper or behavior. The same behavior should be expected of him as of the other children, as long as it does not make too great a demand on his specific crippling condition. For example, if he is crippled in walking, we would not expect him to walk and run like other children but there is nothing wrong with his hands. He should be expected to write and use his hands and to read and to do his school work with the same habits of study and industry as are expected of other children. If his mind is also crippled, that is another situation and one which will be explained to the parents by the physician. It is important that parents learn specifically the child's physical and mental limitations and capacities. Whatever he is capable of doing physically and mentally, he should be expected to do. You may want him to have the best medical and surgical care, but this should not be a major topic of conversation in the family circle. Don't talk about doctors and operations for they may only make him conscious of the expense and attention that have been spent on him.

Exceptional children need exceptional parents. The child's future depends on wise and understanding guidance if he is not to be set apart, the object of pity. He does not need pity. He will receive the best medical care, psychologists will study him, teachers will take special courses to learn how to help him. Special speech and reading teachers, as well as other educational specialists, will spend lifetimes to find better ways of educating him. Vocational and educational counselors will help him plan his future education and career. Special scholarships are available to enable him to continue his education and special agencies will find him a job and help him keep it. Don't pity him, pity the normal child who must struggle with average teachers and an average education—even average parents.

To Meet the Needs of Pregnancy and Lactation

The vital need for an increased protein supply in the diet during pregnancy and the child-nursing period is shown impressively in this chart. During the last four months of pregnancy the daily protein requirement rises far above the normal; after delivery, still more is needed during the period in which the infant is breastfed.



At two years of age, the child needs 40 grams of protein daily. As growth progresses and her body weight increases, more and more protein must be supplied to assure nutritional health and adequate development.

As maturity approaches and the body reaches its full glandular development, protein requirement reaches its peak, 80 grams per day. Thereafter it gradually goes down until it finds its level at 60 grams per day. At this level it remains throughout adult life, unless new demands are imposed on the body by pregnancy and—even more so—by lactation.

The significance of meat with its biologically complete protein in the dietary of the pregnant woman and the nursing mother again has been reemphasized.

In a recent study,* women were advised to eat five ounces of meat more per day through the last four months of pregnancy and the first three months after delivery, than would normally be eaten.

This higher meat consumption was accompanied by a greater sense of well-being, by less frequent occurrence of edema (leg swelling), by better hemoglobin and red blood cell values, and finally a greater production of breast milk for nursing.

The value of meat as a source of protein lies in its high content of complete protein, capable of satisfying all protein needs of both the mother and the child.

ACCEPTED AMERICAN MEDICAL ASSN Council on Foods and Nutrition

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

*Leverton, R.M., and McMillan, T.J.: Meat in The Diet of Pregnant Women, J.A.M.A. *130*:134 (Jan. 19) 1946.

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NEW PEACE OF MIND FOR BUSY MOTHERS!

Send for FREE booklet about KIDDIE KORNER, combination safety chair and feeding or play table for baby. Just the right height for baby's feeding and safety. Exclusive sliding panel makes care of growing baby easier. Extra one-piece top converts low, safe KIDDIE KORNER to study or play table for later use. Folds compactly for travel, too.

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Pneumonia's Waterloo?

(Continued from page 23)

the serums, life saving so often, caused undesirable reactions in some patients. This production of sensitivity could not always be guarded against, even though preliminary testing might have been carried out.

The goal of conquest over pneumonia, though nearer than ever before, was not yet in sight.

Introduction of chemotherapy, represented by the group of sulfonamide drugs, gave new impetus to medicine's crusade. It was learned that the sulfa drugs were extremely effective against practically all strains of the pneumococcus. This automatically brought about practical abandonment of serum treatment and the need for diagnostic service. For a time, certain problems such as possible damage to the body by some of the sulfa drugs or development of occasionally serious sensitivity to the sulfas caused doubts that a satisfactory answer had been obtained. Those doubts have been dissipated to a large extent by development in research laboratories of newer sulfa combinations that cause little or no "side reactions," as undesirable effects from a medicine are sometimes termed, but are still effective against pneumonia germs and other deadly organisms.

The goal of satisfactory conquest of pneumonia, with reduction to "bit" parts in the drama of death instead of the tragedian's role, is really at hand. This appears likely as present evidence indicates that penicillin and streptomycin, the mold products causing such sensations in medicine, have a high potency against pneumonia germs. Indications are that they may act more quickly than the sulfa drugs in checking the virulence of these organisms.

Unquestionably the picture of pneumonia has changed radically. Attacks are checked literally in hours time as the attending physician calls on these new stalwarts of medicine. High fever that in earlier times ravaged the body for eight or ten days drops to normal in two or three days. The "crisis" formerly awaited so anxiously is seen no more. Not only have the sulfa drugs and penicillin reduced the duration of the average pneumonia attack and the intensity of invasion, but also by the same token the many serious complications of pneumonia seen so frequently in earlier days occur only rarely. The germs are killed before they invade the blood stream if proper treatment is given early enough. As a result, abscesses cannot develop in other areas. Also, occurrence of abscesses within the lung itself, known as empyema, is rapidly becoming a rarity.

However, nature has an almost satanic way of keeping just one step ahead of some medical advances, and especially those that do not go to the source of the disease to help the body to develop its own resistant. Perhaps the greatest achievements are represented by procedures such as vaccination against smallpox and diphtheria, that actually eliminates those diseases if carried out 100 per cent. There is no known way to produce resistance to pneumonia. The patient recovering from pneumonia has no more ability to throw off a later attack than one who has never experienced the disease and no serum can be given in advance to guarantee against infection. That fact implies that medicine and pneumonia must meet always on a battlefield elected by the latter.

Another way in which pneumonia may continue to harass man is by developing new strains or families of germs that will prove equally dangerous. A parallel may be found in the fact that there are several strains of the germs causing gonorrhea that are immune to treatment with the sulfa drugs. Although it is possible such strains of gonococci may have always existed and are now coming to attention merely because other strains have been eliminated by the sulfa drugs, it is equally possible that these "new" ones are merely old ones that have learned to avoid destruction by the sulfas. This is a possibility that must be kept in mind for pneumonia although present evidence does not indicate that it has occurred in any of the eight principal strains of pneumonia germs. Observance in recent years of a new form of this disease, known technically as atypical primary pneumonia or virus pneumonia, suggests that the attack is beginning on a new front. This pneumonia cannot be treated successfully with any of the newer methods, as sulfa drugs, penicillin and serum are ineffective against it. Fortunately, these cases have been relatively mild. There is no guarantee against development at almost any time of extreme virulence by this infection, however.

Alert as earlier physicians were obliged to be in battling pneumonia, today's doctors must be equally on guard and prepared to combat the emergencies of this infection. The profession has not been lulled into a false feeling of security to which many readers of popular scientific articles have succumbed. The physician knows that pneumonia germs are still fast growing, destructive, poison producing organisms. No matter how early infection may be discovered and treatment begun, damage already done remains and poisons already liberated remain within the body. This means that although the actual course of the disease may be shortened and the prospect for recovery greatly enhanced, nevertheless the period of convalescence must still be carefully regulated. Doctors know, though patients frequently fail to understand, that administration of sulfa drugs or penicillin one day does not mean that the patient can do as he pleases the next day. It has

Let's Get Things Straight

Our products are not guaranteed to make you look like anyone but yourself (at your best!) . . . they don't rejuvenate skin tissue or remove wrinkles . . . their value is not derived from rare and priceless ingredients obtained at fabulous cost from far-flung parts of the globe . . . and they do not take the place of a matrimonial agency.

They are guaranteed (literally) to suit your individual cosmetic requirements and preferences, to justify your reasons for buying them, or you may return them within ten days for exchange or refund . . . a before-and-after mirror consultation should convince the most hardened skeptic that they do vastly improve one's appearance . . . in our opinion their ingredients are the finest obtainable for the purposes for which they are used . . . and, while they don't exactly take the place of a matrimonial agency, anyone whose eyes are even half open knows that a woman who is fastidious about her appearance stands a much better chance of getting and holding her man. (This is a frankly masculine observation.)

Anyway, the point is: nobody understands and appreciates the importance of fine cosmetics to graceful living better than the woman who uses them.

The Cosmetic Consultants who distribute Luzier's Fine Cosmetics and Perfumes in your community will help you to select suitable Luzier preparations and suggest how they should be applied to obtain the best results, to present You at Your Best through the medium of a Personalized Cosmetic Effect.

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"From the Heart of California"

In tomato juice, Vitamin C is usually considered the all-important nutritive factor. You can't taste Vitamin C, nor smell it, nor see it, but you can be sure it's in your tomato juice in adequate amounts when you buy Sacramento Brand.

Sacramento Brand Tomato Juice meets the rigid requirements of the Council on Foods and Nutrition of the American Medical Association and bears its seal of acceptance. It's a privilege to use this statement in connection with the Council seal "Meets Vitamin C Standards Adopted by the Council." This means that it supplies at least 20 mg. of ascorbic acid (Vitamin C) for each hundred cubic centimeters at the time of packing.

For infants and children, convalescents, those on special diets, as well as for all normal persons, Sacramento Brand is a dependable source of Vitamin C, and it retains in high degree the other vitamins normally present in fresh tomato juice—Vitamin A, Vitamin B_1 and Vitamin B_2. It is processed under continuous inspection service of the U. S. Department of Agriculture and is U. S. Grade A in quality.

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been pointed out by students of present day treatment of pneumonia that physicians are beginning to see some of the sequels to pneumonia that formerly were not available for critical evaluation because death intervened before thorough study of the patient could be carried out. Some which may be mentioned are severe anemia and extreme deficiencies in normal protein elements of the blood and tissues. These, represented clinically by what might be termed a "run down" condition, require as much active treatment as did the pneumonia that was stopped so dramatically by modern treatment methods.

Principal measures employed are repeated blood transfusions and administration of a protein-rich diet. Taking the cue from these findings, physicians now give serious thought to the use of transfusions and the administration of protein concentrates to pneumonia patients fairly early in the infection. This can be done only after careful survey of the patient. In some, circulatory difficulties are part of the pneumonia picture. Adding to the labors of an overburdened heart might prove extremely dangerous.

In earlier days, much emphasis was laid on differentiation between two chief types of pneumonia, lobar and broncho-pneumonia. The former, as its name suggests, involves whole lung lobes or portions of lobes. The latter, most common in infants and old persons, has a patchy distribution about the small air tubes within the lung tissue. Present trends are toward simplification of pneumonia into either primary or secondary. Because effectiveness of modern drugs is the same, whether the patient has lobar or bronchopneumonia, the newer classification seems to have merit.

Pneumonia still operates in the same manner. Basic reasons for its development in almost every instance are the same as they were when the first case occurred and was identified countless years ago. It is a handmaid of debility, of prostration and overexposure to unfavorable surroundings. Evidence in support of the last fact is found in statistics, that invariably show pneumonia incidence in the general population beginning to rise in the latter part of October, when the chill of fall has replaced the heat of summer, and continuing its climb to a peak in January and February, when the icy grip of winter has squeezed resistance to a low ebb. Pneumonia germs are everywhere, in the air, where they may remain alive for long periods, in dust and in the throats of countless human carriers where they lurk ready to attack the instant opportunity offers. The best defense against pneumonia is for a person to guard against becoming chilled and fatigued. For it is at this time when resistance is low that pneumonia strikes hard and fast!

First Day in Kindergarten

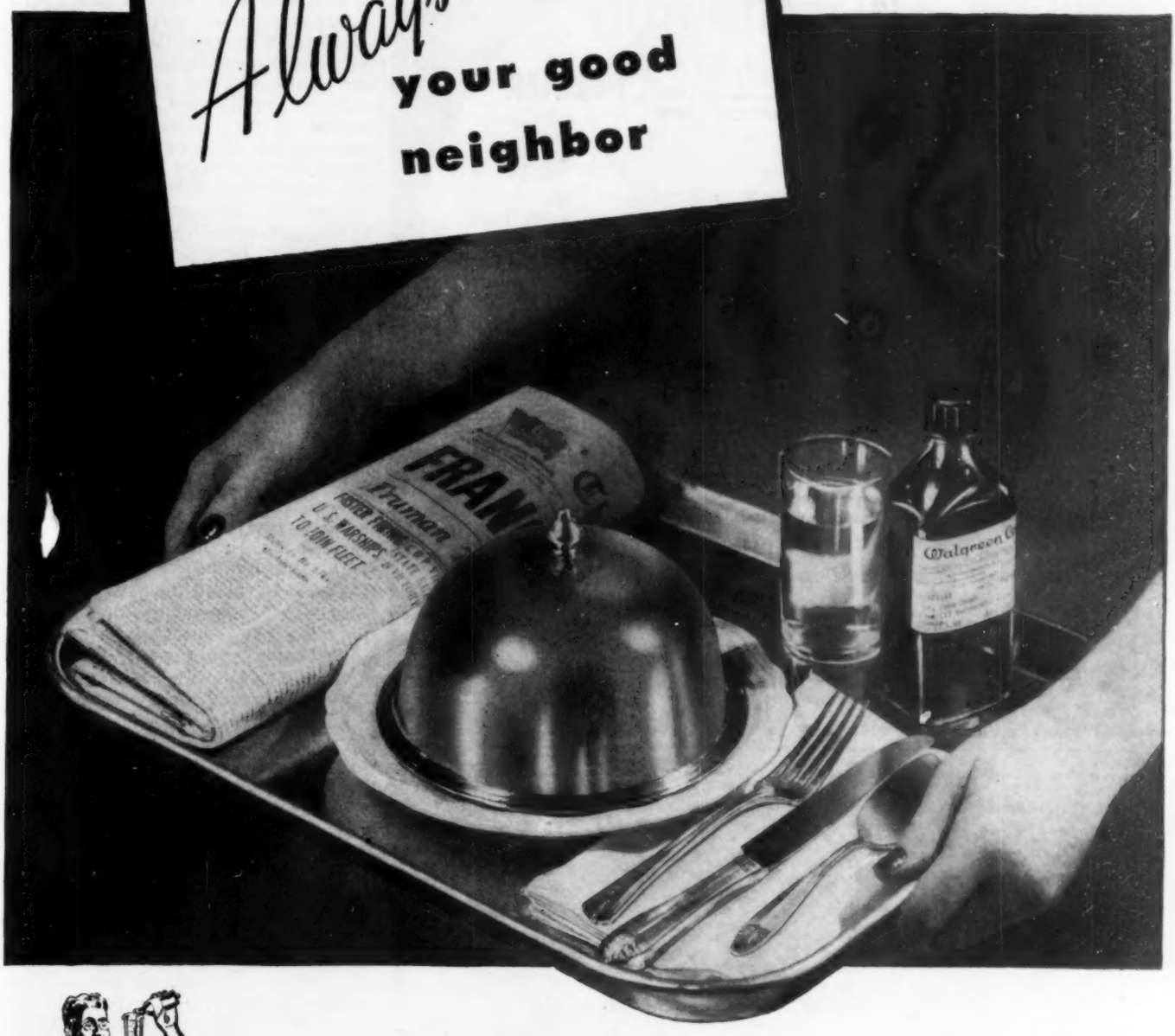
(Continued from page 33)

and uttering great cries of anguish and terror. There are few tears, but many screams and yelps. Her mother, while obviously embarrassed, is nevertheless secretly reveling in her feeling of importance to her child. Importance? My dear mother, wait a few weeks, and see if you do not really feel more importance and pride the day Marsha can say happily to you, "Go home, mother, I want to stay here and play." When without further ado she kisses you hastily and walks confidently away you may feel slightly lost and inadequate at first. But you will gradually feel even greater pride in knowing yours is a happy, welladjusted child, rather than a tearful baby. True, your baby is growing up and this comes as a shock, but if you too are welladjusted and sufficiently mature you will be more glad than sorry.

David is no problem at all. He has had many friends in his few short years. He also has a brother and sister in this same school who have prepared him for this day of days. For weeks they have been regaling him with gay, if slightly exaggerated stories of the various and magnificent joys of kindergarten. There have been no dire, if spurious hints of dark rooms, whippings, or other ridiculous though colorful fabrications. You would be surprised how many children are subjected to such interesting if calamitous revelations, in efforts to make them "behave." So David steps sturdily and confidently into the alien room, that is really only partially strange, (he has heard so much about it), waves his arm gallantly at the sea of bobbing faces and hair ribbons and in a voice that can be heard on the second floor cheerfully shouts, "Hiya kids!" This captivating entrance is a boon to the teacher and the wretched ones. Even in their dejected state, they are children and are more responsive to fun than tragedy. Most of them look up quickly, despair and astonishment mingling in utter confusion on their bedraggled countenances and a small wave of hopeful expectation passes over them. For those of sterner stuff, David's blithe salute is enough to banish further tears, but inevitably, those of fainter heart slide back down to the depths of tears and misery.

Perhaps mother never liked school and it might be that her feelings were justifiable. Consciously or subconsciously, that fear and resentment may be transferred to her child. It takes time, patience and skill to route a homemade aversion and sometimes it may never be completely thrown off. Wouldn't this mother be astonished if she could hear her darling some weeks later spontaneously break the tense stillness during an exciting moment in a game of

Always your good neighbor



Your Doctor is your first good neighbor. A good neighbor, too, is the friend who aids you through illness and helps you through the convalescent hours. YourWalgreen Pharmacist combines this friendliness and professional knowledge in his concern for your welfare. He compounds your prescription with all his skill and experience—serving you, serving your Doctor, serving your community.

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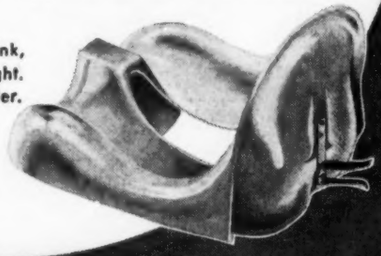
MOTHER KNOWS that the molded BABY-SHAPE gives this comfort . . . that the elimination of strain-provoking footboards and restraining straps are important factors in her child's health . . . that the correct sized opening prevents painful pressure and harmful bulging, and properly supports immature muscle and bone structures.

Of glossy opaque plastic in pink, blue, ivory or beige. Light-weight. Kept clean with soap and water.

Ask Your Doctor



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"Doggie" with, "Hey you guys, it's nice in school, isn't it?"

Perhaps, when we found the friendly puppy peering hopefully in our basement window whimpering to be let in, it was her little boy who said wistfully, "Don't you wish we were all your children and he was our little dog?" (I don't think mother would have liked that so much.)

I wonder if Larry and Herman would have confided to their mothers this gay little affair that was told during a "conversation" period. (This is a daily occasion when the youngsters know each individual may have a turn to speak while others will listen, including teacher.)

Herman: "One day, Larry and I were walking by the church and we had a fight."

Larry: "You couldn't stand up, could you?"

Herman: "No."

Larry: "Did you like it?"

Herman: "Uh-huh."

Larry: "Let's have another fight today!"

This incredulous dialogue was carried on in the best of humor, both shining faces sporting grins from ear to ear. Obviously, this playful "fight" had made them better friends. Yet, how many parents would have "understood?"

I doubt, too, if Eugene has the opportunity to discuss serious affairs with his parents. "Serious?" you say. "A 5 year-old with serious problems or thoughts in his baby brain?" You'd be amazed. Almost every incident that rates a headline in the newspapers reaches those eager and alert, if yet undeveloped minds. You wouldn't expect a seemingly lighthearted child like Eugene to ask, "Do you think all these children here in school will be living after the war?," would you? A rather odd question, but it reveals character and concentrated thought and needs to be answered sensibly and seriously to instill confidence in the future to a thoughtful, slightly frightened child.

And they pick up things from the radio! (Whether these are good or bad is a moot question.) When I asked, "Who knows a song about a baby or a doll?", Shirley, without a moment's hesitation, stood up and in a clear high voice sang, "Shoo-shoo Baby," with rhythm and appropriate gestures. When we played "radio" with a toy microphone, Allan delivered a speech on how he saved tin cans and fats for the war effort that would have done credit to a much older boy.

Questions are boundless and endless. During a discussion of their colored pictures, Paul wanted to know what Margie had drawn in the bride's hair in her picture of a wedding. They were red and blue circles and stood up all around the hair of the beauteous bride like a halo. "Those are electric lights,"

said Margie. "Lights!" shouted Paul with uncontrollable mirth, "she must have batteries in her stomach!" Paul has an older brother who evidently finds time to play with him.

Yes, it is difficult to realize Susie is old enough to start to school. She still has a baby look in her round blue eyes, even though she is outgrowing her clothes by leaps and bounds. But, I beseech you, no matter how it hurts to face the unmerciful truth, get your child ready for this important step into his future—help him pass this great test into the terrible unknown as painlessly as possible by preparing him beforehand. Familiarize him with the thought of "school" and give him as clear and honest and as pleasant a picture as you can, so that he knows at least partially what to expect. Don't let him suffer in the interim. Don't let him suffer the silent agony of the child whose father told him he was going to take him to the barber some day soon to have his hair cut for the first time. This unfortunate child lived in untold terror for days because he thought the barber was going to cut his head!

Children have large and unreasonably active imaginations, especially where the unknown is concerned. But then, although an adult, are you any different? The unknown frightens us all. Yet we forget that so many things that are as familiar to us are completely foreign to a youngster. If possible, take him to visit kindergarten before his own initiation. Let an older, dependable child escort your youngster to school—yes, even the first day after registration. Make your parting at your own door clean and sure, yet without harshness. You and your child will be happier because of it. Be sure your child knows that he will remain in kindergarten for some hours without you. Many children, when brought by their mothers, labor under the mistaken but hopeful impression that you are going to stay with them until class is dismissed. Many tantrums are instigated by such broken illusions the moment mother disappears through the kindergarten door. If after your preparations and precautions, your child bursts into heartrending tears as you leave, remember you have done your part and you may rest assured the teacher will do hers and your child will not be sorrowful long.

Did You Know That

In order to raise and maintain an Army of 1,070,000 men on a volunteer basis, which the War Department estimates will be needed by July 1, 1947, it will be necessary to recruit an average of 40,000 men a month?

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REMEMBER how you struggled to stretch nipples over narrow-neck bottles? How they often slipped and spilled the milk? Remember how you watched the nipple to see that it did not collapse and prevent baby from getting its food?

These nuisances are eliminated in Evenflo Nurser with its wide mouth bottle and screw-on cap. Because its air-valve nipple cannot collapse, babies finish their bottles better. Your busy daughter will be delighted with Evenflo. In spite of increased production, it is still hard to meet the great demand for

Evenflo
"America's Most Popular Nurser" 25c

Pregnancy

(Continued from page 31)

of a person than he is right at this moment. He should be, for he is nine months old."

At four o'clock she finally decided to ask John to come for her.

"I think little Hiram has decided it is time he had a look at the world," she told him. "I am sure I am in labor and Dr. Raidon told me whenever I was having regular pains I should go to the hospital. I have to go home first and pick up my bag."

John told her he would call for her immediately, and she knew that, regardless of the importance of his work, nothing could keep him from coming to her.

John called Dorothy while he was waiting for Marion to put the last few things in her bag that she thought she would need and told her that he was bringing Marion into the hospital.

Dorothy was waiting for them when they arrived and took Marion down to the admitting room and introduced her to the receiving nurse.

"This is my friend Marion Holmes," she said to the nurse. "Marion, this is Miss Stevenson, who will help you through all the preliminaries. When you are settled on the fifth floor, where our babies are born, I will come up to see you. In the meantime, Miss Stevenson will look after you and I will finish my work."

"I hate to see you go," said Marion. "You seem my one tie to reality."

"Only an additional step in your education," answered Dorothy. "Since you have learned so much about babies during your pregnancy you need to experience the final stages. A few hours now and that phase of your education will be over, too. Then you can start a new subject which we will call 'what to do with a new baby in a new nursery.' Some day you can write the story of your experiences—in fact, two stories. You can call one 'The Days Before,' and the other 'The Days After.' Right now you are in 'The Day Between.' "

After Dorothy had gone, Miss Stevenson turned to Marion.

"You are Dr. Raidon's patient, Mrs. Holmes?"

"Yes," answered Marion.

"He called a short time ago, saying that you would probably be in, so we were expecting you. I will take you directly to the birth rooms. He will send us the record he kept of your health during your pregnancy and that will be put on your hospital chart. There is a little additional information we must have, though, so will you please fill in the answers to the questions on this paper?"

Marion filled in the blank spaces requesting her mother's name, her father's name, where she was born, where John worked and many other things.

After she completed the form and put on a hospital gown and robe in place of her own clothes, Miss Stevenson called the hospital doctor who was to make the admission examination. While they were waiting for him Miss Stevenson weighed her and took her blood pressure and temperature.

"Here is Dr. Drummond, Mrs. Holmes," Miss Stevenson said a short time later after Marion was settled in bed. "He will carry on from here."

"Are you having labor pains, Mrs. Holmes?" he asked.

"They appear to be at about eight minute intervals, Dr. Drummond," Miss Stevenson answered for her.

"Have the membranes ruptured?" he went on.

Marion wasn't quite sure what he meant, so he asked his question in another way. "Has the bag of waters broken? Have you lost any fluid?"

She thought not and asked if that were abnormal.

"No," he answered. "At times it is important for us to know whether the baby is still immersed in fluid or whether it has drained away, but as far as your health is concerned it makes no difference."

He examined her heart and lungs and while he was palpating her abdomen to learn whether the baby's head was below in the pelvis or at the top of the uterus she had one of the most severe pains she had yet experienced. Her whole abdomen felt as if it were in a vice with some one compressing it and the doctor waited until the pain passed.

"Record position as O.L.P., Miss Stevenson," he said presently, and after putting his stethoscope on her abdomen and looking at his watch, he added, "Fetal heart rate regular, 160 per minute."

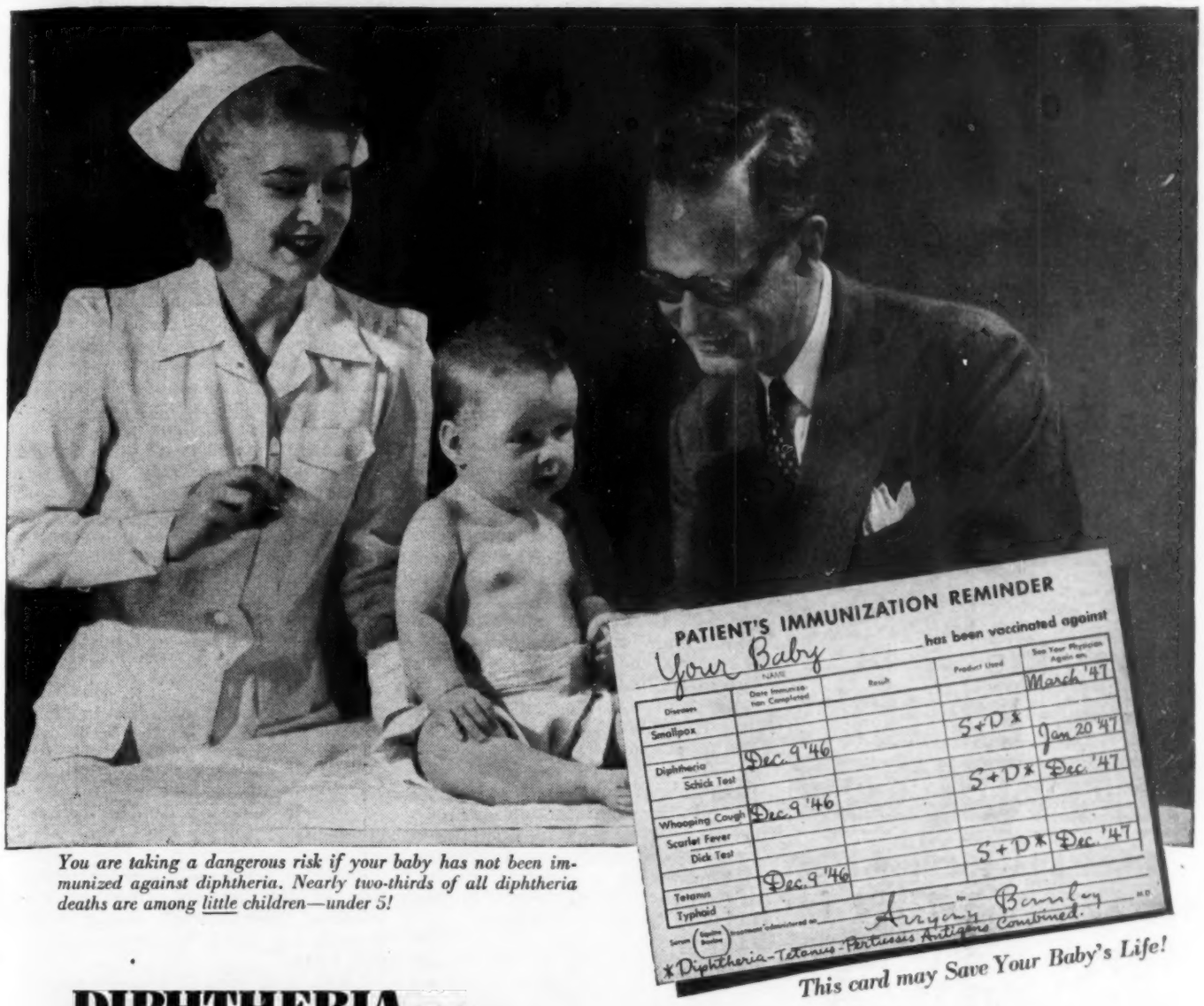
"Would you tell me what you meant when you said the position was O.L.P., Dr. Drummond?" asked Marion.

"The letters stand for Occiput Left Posterior, which means that the back of the baby's head is against the left side of the back of the mother's pelvis," he answered. "The baby's neck is always bent so that its chin rests on its chest and all of the joints of its arms and legs are ordinarily flexed—bent—so that it is curled up into a compact little ball. It may be facing the mother's back or facing the abdominal wall. The letters I just gave indicate that the baby is facing forward and somewhat to the right."

"Can you tell me when the baby will be born?" Marion asked him.

"Not definitely, although it will probably be around midnight."

"I wish he would come before 12 o'clock so that he and Melissa Anne would be twins. Melissa Anne, who was born early this morning at the Lakeview Hospital, is the daughter of one of my best friends, and my little



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WEE WALKER Shoes FOR Wee WALKERS

Hiram is going to be a playmate for her. It would be nice if they could celebrate their birthdays together."

"Perhaps they can," Miss Stevenson answered. "We are ready to go to the birth room now, so will you sit in this wheel chair, please?"

"But I can walk," said Marion.

"I know," said Miss Stevenson, "but it is customary to take you in a wheel chair so you may as well have a ride."

"Are there many other babies who will be born tonight? It seems so quiet up here. I thought that most women complained a great deal during labor," said Marion.

"We had two babies within the last hour and there are five women besides yourself who are expected to give birth before morning. We do occasionally have women who make a great fuss, but they are in the minority. They are usually the ones who have been pampered and spoiled all their lives or those who are having their first baby and are frightened because they don't know what is going to happen," said Miss Stevenson.

"Here is Dr. James," she added as a young man in white entered. "He will see you frequently to report your progress so that Dr. Raidon can be here in plenty of time to deliver your baby. He would like to examine you again to be sure everything is still progressing normally."

Marion was interested in everything that was being done for her. The pains were becoming more severe and recurring more frequently and during the moments that they lasted she clenched her fists and held her teeth firmly together.

After Dr. James had finished his examination, Dorothy and John came into the room. John had taken off his suit coat and was shrouded in a white gown that was fastened in the back with tapes and had a wider tape that tied around the waist.

Marion laughed when she saw him. "That makes you look suspiciously fat around the waist, John. I believe you are actually getting a middle aged bulge."

"At least I can still cover up my bald spot and when I go out on the street with a baby in my arms no one will ever suspect my advanced years," he answered.

"They will let John stay with you," Dorothy interrupted, "until you are taken into the room where little Hiram will be born. Then he can wait in a special room for fathers in the corridor. After the baby is born the nurse will show him off and that will probably be as close as John will get to him for the ten days that you and the baby are in the hospital."

"You mean that I won't be able to hold my own son for ten days?" asked John. "After I have had to wait all of these months, you are going to put me off still longer?"

"Babies have to be protected from strangers—even fathers. They have never come in contact with any bacteria prior to the time of birth and a new baby, as I told you once months ago, is susceptible to infection. We are suspicious of the bacteria that may lurk in your clothes, hands, nose and throat, the same as we would be of those on any other person."

"There isn't any baby around yet," said John. "I don't see why they put this white nightgown on me before they would let me through the door leading into this part of the building."

"Husbands are among the elect on these occasions. No one except doctors, nurses, hospital employees with a definite job to do, women about to bear babies and men about to become fathers ever come through that door. The reason for the gown is to keep any harmful bacteria on your clothes some what confined. I suppose the gowns actually don't do much good, but they seem a little protection."

"You mean Marion suddenly needs to be protected from me? She probably has the same bacteria that I do."

"Yes, she may," answered Dorothy, "but during labor and at the time of delivery every means possible is taken to destroy the bacteria which the prospective mother may have on her body. Before the birth of the baby the preparation is the same as it would be for a surgical operation. Immediately after birth the mother is extremely susceptible to infection. Before bacteria were discovered, hundreds of women died from blood poisoning every year. They called it childbed fever and almost expected it. At the present time in this country, childbearing is far safer than it has been in the history of the world."

"Was that why I had to shower and scrub before being brought down to this room even though I had taken a bath this morning?" asked Marion.

"Yes, that was one of the reasons," answered Marion. "Soap and water are actually more effective than many disinfectants and a good scrubbing does much to get rid of bacteria."

Marion, whose pains were coming closer together and lasting longer than they had previously, relaxed her hold on John's hand and turned to Dorothy to ask whether she knew any midwives, or if there were any in their city.

"No, I don't know any," answered Dorothy, "but there are a few. You might be interested in a woman Jerry told me about soon after you became pregnant, Marion. She is the wife of the janitor in his building and was pregnant. She and her husband both thought they wanted her to have her baby at home with the help of a midwife. I had Jerry urge his janitor, Bill, to send his wife for her care before the baby was born to one of the centers conducted by doctors who are paid by the city. She went and liked the doctor so much that she consented to go to the City Hospital when her baby was born. They

have a 2 month old boy now and are as proud of him as they can be. Jerry says that Bill told him every one of the other eleven children he expects to have will be born in the same hospital, and that his wife hopes that all the other women who were in her ward will be back at the same time whenever she has another baby."

At that point, Dr. Raidon, accompanied by the nurse whom Marion had seen when she arrived at the birth room floor, entered the room.

"Good evening, Dr. Kent," he said, addressing Dorothy. "I see you and Mr. Holmes are helping my patient keep her mind off her difficulties. She has been telling me that you have been giving her a liberal education during her pregnancy and apparently she is still learning."

"Marion will be asking questions with her last breath," said John. "I think, though, that I am probably about as bad. Dr. Kent has been tremendously kind to us."

Dorothy laughed. "You know how satisfying it is to one's ego to have an audience that will let you talk about yourself and your work and actually seem to enjoy it. But I must not keep you from examining your patient, Dr. Raidon," Dorothy added. "If all patients were like this one I am sure you would find the practice of obstetrics a delightful occupation."

"Will I see you again tonight, Dorothy?" asked Marion.

"Yes, I will come in some time later this evening—not that you will need me, but perhaps John will be requiring a little attention by then. Goodbye for now."

John went out the door with Dorothy, and Dr. Raidon turned to Marion.

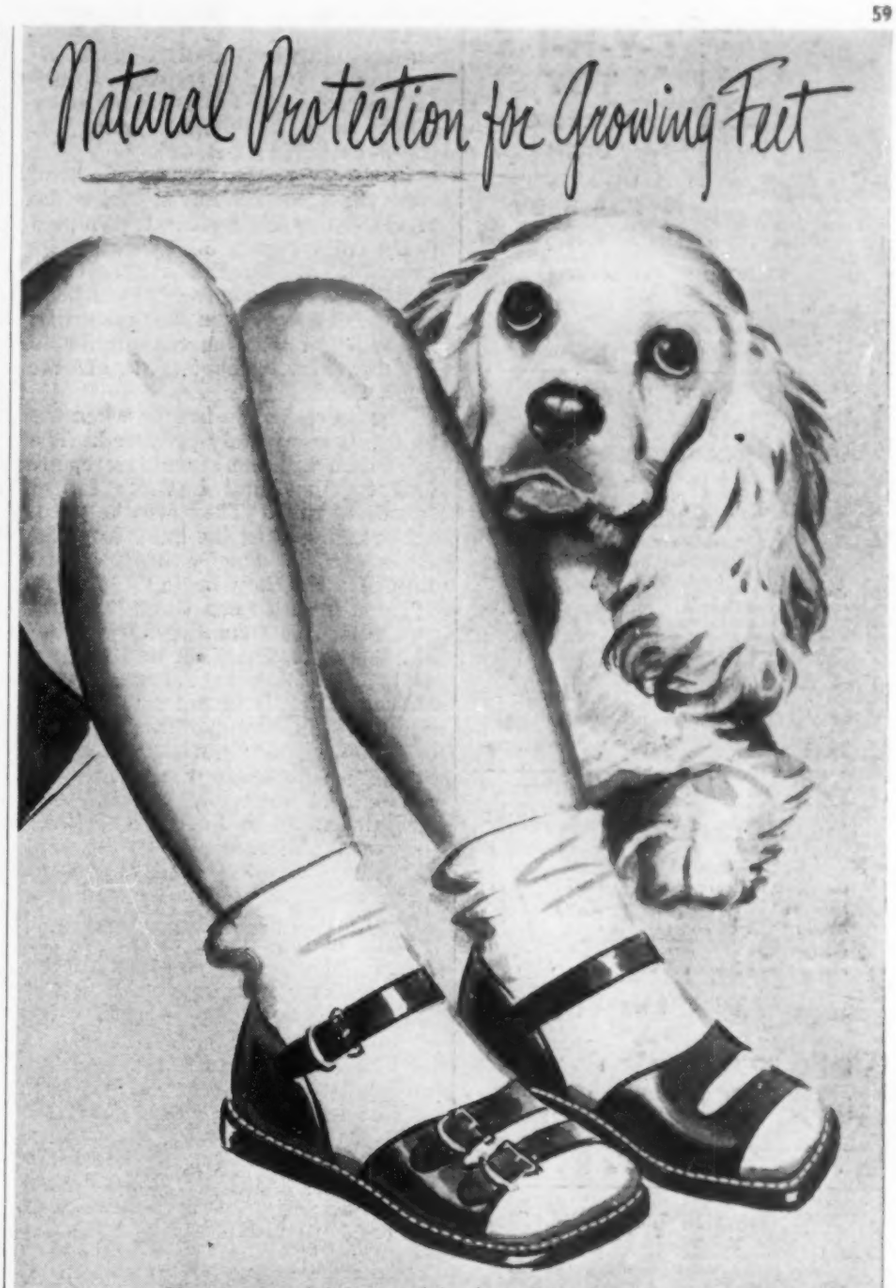
"How are you feeling, Mrs. Holmes?"

"I am wondering why I let myself in for this right at the moment. Momentarily, in the middle of a pain, if it weren't for the thought that soon I can actually hold my baby in my arms, I would like to go to sleep forever. Just when it seems I can't stand it, though, the pain goes away and I can relax and prepare for the next one. Why does it have to hurt so much, Dr. Raidon?" asked Marion.

"Did you ever have a cramp in a muscle? Some people have them commonly in the back of the leg," asked Dr. Raidon.

"Yes," answered Marion, "but what does that have to do with the pains of labor?"

"A cramp is a continuous uncontrollable contraction of a muscle that is painful because of the prolonged tension. Labor pains are similar. The uterine muscles contract and stay tense for increasing periods of time as labor progresses. Early this afternoon when you first called me they lasted only a few seconds. I have been timing your pains by the clock there on the wall while we have been talking and now they are lasting about twenty seconds.



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"Labor is divided into two stages. You are still in the first stage although you are progressing rapidly and we are going to have your baby sooner than I thought from Dr. James' earlier report.

"In the first stage the baby's head enters the mother's pelvis, that is the space surrounded by the lower part of the hip bones, and begins its descent. The muscles and soft tissues that lie below the baby's head relax and are drawn back so that they will not form an obstruction to the downward movement of the baby's head.

"The second stage begins when the passage is completely prepared. The pains then become more severe, are close together and last for longer periods of time. They are the pains that actually expel the baby from the uterus. It is usually born a few minutes after they begin."

"I don't think I can stand it if they get any worse than they are now," said Marion. "Dr. Kent told me that for little Hiram's sake I was not to ask you for pills to put me to sleep, but I don't believe she knows how it feels."

"She didn't mean that you were not to have any relief at all," said Dr. Raidon. "I will order something for you now that will make the pain a little easier to bear and as soon as the second stage begins we will give you an anesthetic."

"Will that hurt the baby?" asked Marion. "I wouldn't really want anything if there were a chance that it might."

"No," answered Dr. Raidon. "You need have no fear of that. Will Mr. Holmes be able to stay with you?"

"Yes, he will be here. Nothing could drag him away."

"I had intended to go home for a late dinner," said Dr. Raidon. "I think, however, that it would be well if I eat here in the dining room. I want to be here, and not some where between my house and the hospital, when your baby arrives."

John came in just then with the nurse who gave her a hypedermic. Occasionally she drifted off for brief intervals into sleep. John could tell by the tightening of the grip on his hand when the pains came and the length of time they lasted. He realized that they were coming closer and closer together so that Marion had little respite between them.

Dr. Drummond came in frequently to put his stethoscope to Marion's abdomen and determine the baby's heart rate.

"Does it change?" John asked him on one occasion. "Why do you listen so frequently?"

"It does not change as long as everything is progressing normally. If for any reason the baby isn't getting enough oxygen or is becoming distressed in any way the heart action becomes irregular. If the disturbance continues the heart beats more slowly and it may eventually stop. We listen so that at the first sign of anything wrong we can try to find out what it is and correct it."

Dr. Raidon came back within an hour from the time he had seen Marion previously and again examined her. He was surprised to find that she was rapidly approaching the second stage of labor and that she was almost completely ready to give birth to her baby.

"You are having a shorter labor than do most women with their first babies, Mrs. Holmes. I thought that you would probably keep me up most of the night but it looks now as if you and I both would have a good night's sleep."

He rang the bell for the nurse and ordered Marion taken into one of the delivery rooms.

"We will have to ask you to wait in the husbands' room, Mr. Holmes, until the baby is born," he said.

Marion was taken into a nearby room and noticed that it looked like a surgical operating room. She had expected it to look different some how, but was too concerned over the rapidity with which her pains were recurring to notice much else.

She heard Dr. Raidon say, "Start the anesthetic, please," and almost immediately felt a surge of relief—a feeling of being separated from her suffering body and of floating farther and farther away until she had no consciousness of her surroundings.

After Marion had lost consciousness it seemed to her only a moment had passed when she felt some one laying a cool, wet cloth over her eyes and heard as if in the far distance a high pitched, wailing cry. She tried to turn her head in order to hear it better, but the movement was a little more than she could manage. The nurse standing beside her noticed that she stirred and leaned over and said,

"Your baby is here, Mrs. Holmes," and added something more to which Marion paid no attention. That was all she wanted to know. She had her baby and slipped back into unconsciousness.

When Marion again became conscious of her surroundings she was in a different room. She opened her eyes in the dim light and saw John sitting in a big chair close to her bed. It was several minutes before she had energy enough to speak to him, but she finally said,

"John—"

"He quickly rose to his feet and went to her bedside.

"John—the baby?"

"Don't try to talk, Marion," he said. "Go to sleep and in the morning they will bring him to you."

"John—is it—?"

"Yes, my dear, it is little Hiram."

"Was Dorothy here?" she asked after a moment.

"Yes, Dorothy was here. She stopped to see the baby before coming to see me. She told me to tell you that you had done a grand job during pregnancy, that she had answered all your questions for nine

"Are Bulbsnatchers People?" asks Prof. Colonna

"We'll say they are, Jerry! Most everyone's been guilty of robbing one light socket to fill another!"

COLONNA: *Ah-ha — "light"-fingered, eh?*

"Wait, Jerry. Bulbsnatching's no crime—just darned annoying. People are apt to strain their eyes with a wrong-sized light bulb or sprain an ankle in the dark."

COLONNA: *Egad — is there a doctor in the house?*

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COLONNA: *Groping for words? You mean "For a monetary modicum the illuminatory capacity . . ."*

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months, but that in the last few hours you had answered some for yourself and that for the rest of your life you were going to be answering them for little Hiram."

Marion was interested, but it was too much effort to continue listening to John. She had a baby to hold in her arms. She and John had created a new life and the future road for the three of them beckoned endlessly through the years.

Tuberculosis Organizations

(Continued from page 27)

Geneva, obtained Red Cross credentials and with their microscopes and bottles of stain, embarked on an odyssey to the Balkans that ended in a German war prisoners' camp in Hungary. Being an American, Doppler was freed, but decided to remain in charge of the camp's laboratory. Here he devised a method of shortening the time required for a Wassermann test from two days to two hours, did some research on the epidemiology of trench fever and methods of fighting gas gangrene.

In 1921, William Doppler returned to Paris, to begin anew where he had left off in 1914. Seven years of his life were gone. "I still had to learn that when one goes to war one is a hero, but when one returns from it, one is a problem. The writers of my time speak of a 'lost generation'; well, I belong to it. The Swiss and French institutions did not want me because the jobs were for native sons and I was an American. The world had grown intensely nationalistic. For other opportunities I was too old. The youngsters coming from the schools must have their chance and, besides, who wanted any of the boys who went through that hell? Were they not all warped and had they not the wrong ideas about their proper place in life? The postwar literature is full of stories of men like me. Some never became useful again, some made their adjustments. I believe I did."

He was offered a post as director of the relief work for the American Friends Service Committee that was active in Central Europe. Working with Herbert Hoover, he was charged with distributing food to the hungry populations of the Saxon ore mountain regions, whose food supplies had been cut off by the war.

When things were running smoothly he felt that he had outlived his usefulness there. As he puts it, "I decided to forget about chemistry, chemotherapy and tuberculosis and become a business man to make some money."

He returned to America and entered the advertising business. In 1934 he became the advertising manager of an important American corporation, where his knowledge of chemistry was a decided asset.

But let him continue: "By now I had forgotten whatever I knew about the mycobacterium—tuberculosis. I had forgotten, but tuberculosis had not forgotten me. In 1934, following a severe cold and sore throat, I lost my voice. The doctors diagnosed this as a sinus condition and treated it until tuberculosis diagnosed itself by a series of hemorrhages that just about killed me. Had sputum tests been made? Yes. Taken at different times, they just happened to be negative. Had x-rays been taken? No, not until after the hemorrhages. Why not? I don't know. Who but a tuberculosis specialist would suspect tuberculosis in a man, 194 pounds stripped, with the world's best appetite, a barrel of a chest and not a sound to be picked up with a stethoscope? A picture of perfect health but for an inflamed throat. Did I suspect it? Yes. My war experience had taught me that when people lose their voices one of three things may ail them—cancer, syphilis or tuberculosis. All three were ruled out by what I thought competent medical diagnosis."

Further examination showed that Mr. Doppler had a cavity in one lung the size of a tangerine. Pneumothorax was induced, but it was necessary to sever adhesions to obtain a satisfactory collapse. "In the fall of 1935, after eight months of complete bed rest, including six months' vocal rest and four months of convalescence, the good news came—ready for work again! Work? What kind of work? Back to the old job? Making money, working under constant pressure, carrying the responsibility of a large organization? No, that would not do. When one lies flat in bed, looking up at the ceiling for days, weeks and months, one has plenty of time to think, take inventory of one's life, and pass resolutions. I had resolved to leave business. I had acquired all that any man is entitled to have—a wife, home, some money in the bank, a few securities in the safe deposit box and a reasonable security for old age. What more does one want? No, I was through chasing dollars. Why not begin where I left off in 1914, become a school teacher, college professor or do some research in tuberculosis? That would not do, either. Who would hire a one-lung school teacher without teaching experience, or a research worker who spent his years solving business problems? Somewhere in the world there must be a place where my unusual experience could be of use in the fight against tuberculosis. Where was this place?

"Once the question was phrased, the answer was simple. Tuberculosis association work, of course. Selling the true facts to people. Sales management, advertising experience, together with thorough scientific training, the World War and personal experience with tuberculosis should equip a man for this particular phase of public health work.

IN THE FREQUENTLY OVERLOOKED

Human Phase OF NUTRITION

HUMAN nutrition presents many phases not encountered in experimental studies. The laboratory animal, driven by hunger, will eat and thrive on any food substance that is adequately nutrient. Taste and variety and meal satisfaction are of little moment in such nutritional studies.

In human nutrition, the joy of eating, and especially the satisfaction of having eaten well, play an important role. Frequently, though physiologic hunger has not come about, it is the pleasant memory of the last meal that engenders the appetite.

To add satiety value to the meal, candy may well serve as its last course. Even an otherwise drab meal gains much when topped off by a piece or two of candy.

Confections in the manufacture of which milk, butter, eggs, fruits, and nuts or peanuts are used, are particularly suited for this purpose. This is true because of their universal taste appeal, but also because they contribute small amounts of many essential nutrients.

THE NUTRITIONAL PLATFORM OF CANDY

1. Candies in general supply high caloric value in small bulk.
2. Sugar supplied by candy requires little digestive effort to yield available energy.
3. Those candies, in the manufacture of which milk, butter, eggs, fruits, nuts, or peanuts are used, *to this extent* also—
   (a) provide biologically adequate proteins and fats rich in the unsaturated fatty acids;
   (b) present appreciable amounts of the important minerals calcium, phosphorus, and iron;
   (c) contribute the niacin, and the small amounts of thiamine and riboflavin, contained in these ingredients.
4. Candies are of high satiety value; eaten after meals, they contribute to the sense of satisfaction and well-being a meal should bring; eaten in moderation between meals, they stave off hunger.
5. Candy is more than a mere source of nutriment—it is a morale builder, a contribution to the joy of living.
6. Candy is unique among all foods in that it shows relatively less tendency to undergo spoilage, chemical or bacterial.

This Platform is Acceptable for Advertising in the Publications of the American Medical Association

COUNCIL ON CANDY OF THE *National Confectioners' Association*

1 NORTH LA SALLE STREET CHICAGO 2, ILLINOIS

"On October 1, 1935, on a trial basis at $25 a week, I was hired by the National Tuberculosis Association in the health education service. Later I was placed in charge of the Early Diagnosis Campaign, a nationwide educational campaign each spring. In 1940, I became a field director of Adult Health Education. With the help of committees, I created the educational material, posters, pamphlets and exhibits used in that campaign. Over twenty million pamphlets that I have written have been distributed so far. Eight million pamphlets with the message, 'X-rays will reveal tuberculosis before symptoms appear,' were sent to the American people in 1940 alone. Eight million pamphlets a year, however, is nothing to brag about. Most patent medicine salesmen tell their story ten times as often in a year's time.

"In 1942 I was made director of the Industrial Hygiene Service of the National Tuberculosis Association and still hold this position.

"I hope my efforts will help to bring nearer the day when every man, woman and child in this land of ours shall have a wholesome respect for tuberculosis, based on sound knowledge of the disease, instead of living in hysterical fear of it or showing the risky complacency that keeps tuberculosis on the rampage. In 1935, when I went into tuberculosis work, over 71,000 Americans died from this disease. Eleven years later, in 1946, the number of casualties will be about 50,000. That is progress."

Flu Bug

(Continued from page 29)

Producing the combined vaccine for the Army represented a gigantic job in which many pharmaceutical firms coöperated. The tedious "washing" process which separated the virus-rich red cells from chick embryos made the cost-per-dose extremely high. But before the program was completed, the researchers came up with a new method of separating these cells by high-speed centrifuge. The result was an increased yield of virus culture and lower costs. The improvement arrived too late to be of appreciable benefit to the government; but the savings are now being passed along to the civilian public as a dividend of wartime research.

The flu vaccine is designed for wide, routine use. Everyone, who knows, from past experience, that they are susceptible to flu should take the "shot" once a year. For a few dollars—and the momentary sting of the needle—you stand an excellent chance of outwitting influenza. And when a high enough proportion of the populace has had the shots, say the experts, epidemic influenza may be a thing of the past.

FIRST SCIENCE TRIUMPH

Twenty-five persons of average education were asked the following question; only three gave the correct answer.

"I am the oldest, most universally used scientific device for overcoming shortcomings in the human body.

"More than six hundred years ago I was born in Florence, Italy; since then I have continuously aided millions of persons to better living.

"My work in succording humanity started centuries before science discovered such basic facts as the circulation of the blood, anesthesia for painless surgery, or the cellular structure of the human body.

"I am the Rosetta stone of modern science, the light that penetrated and helped dispel the Dark Ages.

"Neither drug nor pill, I am a tonic that brightens the lives of countless men, women and children.

"I take on many forms and shapes, yet those whom I aid are hardly cognizant of my presence.

"I am apart, but a part of millions.

"What am I?"

The answer—*spectacles.*

Unquestionably eyeglasses "constitute the first major contribution of modern science to human happiness," says M. J. Julian, president of the Better Vision Institute.

"Spectacles were first devised about 1285 by Salvino Armati, a young nobleman of Florence, Italy. Some investigators have asserted that he was assisted in his work by Allessandro Spina, a Dominican monk of Pisa. However, the monastery archives declare that Spina learned from another the art of making spectacles.

"Not until a quarter of a century after the invention of spectacles did a man of letters overcome superstition sufficiently to dissect bodies to see how the human organism works. This pioneer, Professor Mondino of the University of Bologna, secretly dissected the bodies of two females. He did not open the heads because of fear of committing a mortal sin. The description of his work constituted the textbook of anatomy in universities for three hundred years. Scientific progress traveled at a snail's pace in those times. Today a scientific book usually becomes obsolete within a decade.

"Against this background of ignorance came the discovery of the lens and use of it in conditioning light for better seeing," continues Mr. Julian. "In a short time spectacle lens grinders sprang up all over Europe, and by the end of the sixteenth century there were guilds of spectacle makers in all the principal cities. Thus, the use of eyeglasses was widespread long before William Harvey in 1628 published his famous theory of the circulation of the blood in the human body."

Hope for Tired Minds

(Continued from page 37)

Frances, was in the Far West when I reached home, as her doctor husband was in service there. When he went overseas, Frances and the children visited us. Not wanting the three boys, 11, 9 and 4, to think their Grandpa an old fuddy-duddy, I took a short course in sleight-of-hand.

In June, 1943, Frances drove up and the three small boys jumped out of the car. You can imagine how the tricks and puzzles Grandpa knew helped break the ice. On my visits at their home, my usefulness as repair man (McLean trained) certainly raises me in the estimation of the whole family!

Soundness of my recovery seems well attested by the facility with which I was able to do my part in certain business matters. First there was the process of restoring me to my proper legal status. Contacts with lawyers, banks, investment houses, etc., brought no sense of incapacity. In 1944, I handled the sale of a house belonging to Mrs. Kimball. This could not be done overnight in these abnormal times, but I'm sure that the capable agent and the veteran of the law with whom I dealt found nothing abnormal with my part of the deal.

Later in that year I joined the Dedham Rotary Club and this association has been most helpful and enjoyable. Entree to the Boston club is a collateral privilege enabling me to meet many old Boston friends. Though a Mason, I have never been really active. Now, at the frequent suppers, I feel I qualify at least as a fair trencherman. The renewal of social activities, such as my college fraternity (Theta Delta Chi), the famed "Dedham Horse Thieves" (founded in 1810) and the Dedham Historical Society came along naturally and happily. Last March I took a mild plunge into town affairs and was elected a trustee of the Dedham Public Library. The associations and duties are delightful!

Nothing has given me more satisfaction, though, than establishing the Isobel Collins Special Fund for the library of McLean Hospital. It was my wish to recognize the benefit and inspiration I had gained from the library, the Gazette and Miss Collins by a gift to be known as The Isobel Collins Music Alcove of the McLean Hospital Library. With the trustees' approval, the alcove has been set up. Its special corner contains an eight volume set of vocal and piano music, four-hand symphony scores and books on music and composers. These are in regular use and with a recently acquired fine radio-phonograph, the alcove is well on the way to increasing usefulness.

My continued activities in the library have been most interesting. Miss Collins and I have many consultations on the selection of books.

Oculens SUN GLASSES
PRIMARY ACCENT ON *"Quality"*

Oculens lenses are processed to exacting optometric standards to assure proper light transmission, undistorted visual images, the absorption of ultra-violet (sunburn) and infra-red (heat) rays, and the retention of faithful color values. Paired lenses are matched and coupled for perfect coordination.

Ocu-lenses easily meet the specifications for Sun Glasses as set forth in Bulletin GS-78-39 of the U. S. Department of Commerce, Bureau of Standards. They excel the standards prescribed for absence of prism power, absence of refractive power, absence of apparent astigmatism, and absence of striae, bubbles, seeds and other surface defects.

For men, women and children whose vision does not require prescription glasses, these genuine optical Oculenses offer high-merit eye protection. Moreover, Oculens genuine optical frames are hand-shaped of sturdy Zyl sheet stock—a quality product favored for fine eye-glasses . . . and Oculens utilizes only genuine optical hinges—assuring durable construction and long, comfortable wear.

Smart design and color of frames is also an important consideration in the making of Oculens sun glasses, and have earned them favorable editorial notice in such well-reputed fashion magazines as "VOGUE," "HARPER'S BAZAAR," "TOWN & COUNTRY," "ESQUIRE," "NEW YORK TIMES" and others.

Oculens Sun Glasses are sold in all better stores—
priced from $1.98 to $12.00

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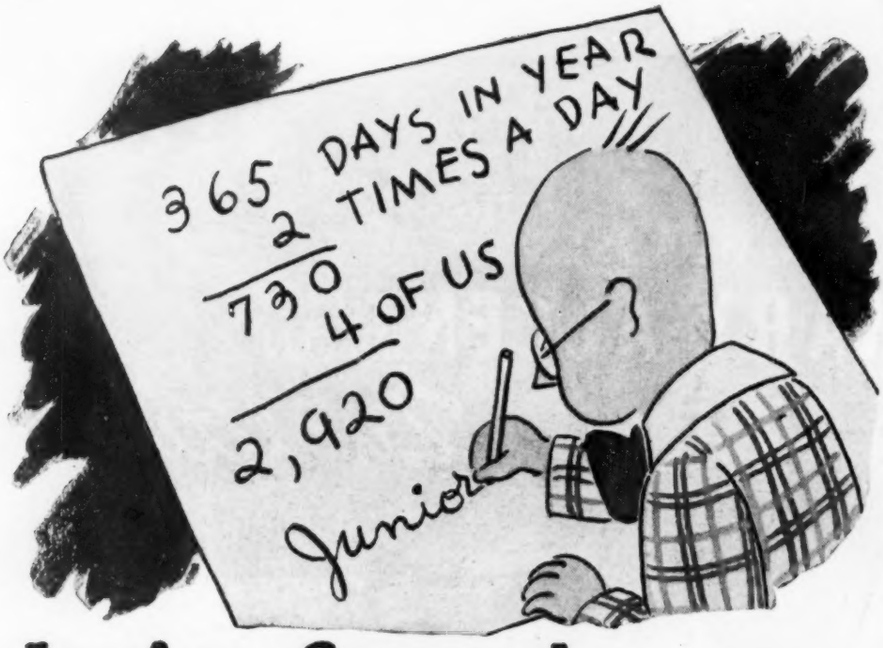


Junior figured this one out . . .

he's a regular "quiz kid"—always figuring things—papa and mama and sister Jane were surprised to learn from his calculations that together they brush their teeth 2,920 times a year. Papa said, "Whew! that takes a lot of dentifrice". Mama said, "Lucky we discovered Arm & Hammer Baking Soda. It's pure Bicarbonate of Soda". Sister Jane said, "That's the dentifrice our dentist told us to use". Junior said, "It sure cleans teeth, and pop, are we saving money—why a package of Arm & Hammer lasts us for weeks—and it costs just a few pennies".

Accepted COUNCIL on DENTAL THERAPEUTICS AMERICAN DENTAL ASSOCIATION

Send for free booklet

Arm & Hammer Baking Soda and Cow Brand Baking Soda are among the dentifrices that meet the exacting requirements of the Council on Dental Therapeutics of the American Dental Association. Both brands are classified as acceptable dentifrices and have enjoyed the seal of acceptance longer than any other dentifrice.

ARM & HAMMER OR COW BRAND BAKING SODA

CHURCH & DWIGHT CO., INC., 10 CEDAR STREET, NEW YORK 5, N. Y.

This has been a good thing for me and I hope that residents at the hospital who know me as a recovered patient find stimulus in the example of a tough "case" who has returned to health and an active life.

It is a skittish question of the convalescent patient: "What can I do with myself when I get out?" Where one can resume a regular occupation, there may be less difficulty. But those without a posthospital occupation may dread returning to the outside and home life. "Won't the time drag terribly?" they wonder. "Won't I be an awful nuisance at home?"

Well, here are a few of the ways I keep busy:

Music: piano; phonograph and piano together (great fun); organ; radio; records; concerts, etc. My piano playing is chiefly for my own enjoyment and I play as badly as I please.

Handicraft: home tinkering and repair work, such as easing tight doors and drawers and putting up shelves. My specialty in handicraft is making useful articles with red cedar wood. Recently my accumulation of cigarette boxes, pencil and letter trays were displayed in the annual exhibit of the Dedham Society of Artists and Craftsmen, and are now finding a growing local market. (Advice to convalescents: Don't take it to heart if all your ideas don't meet with the enthusiastic approval of the family. Remember they have been going up in the grades while you have been playing hookey, so don't try to reform the household at once!)

Writing: Besides my personal letter writing I write now and then to authors whose books I enjoy. The pleasant responses add a zest of anticipation to the visits of the postman. Editors to whom I have sent some of my reviews have replied with interesting comments. Not content to be a mere listener, I have made constructive suggestions to broadcasting companies that have been heeded.

Public service: I have spoken of my new job at the public library. May I suggest some "little" things that one can do to help his community? When out walking, note the things that need attention—a twisted sign, a signless corner, toppling stones on a wall, a break in the sidewalk, a broken glass in a fire alarm box. Many people see these things but don't notify the proper authorities that might save the town from a lawsuit or some person from injury. The telephone is handy and postal cards are still at a ceiling of one tin or copper cent.

One thing more, I believe thoroughly in the good old Anglo-Saxon custom of writing to the newspapers. A letter to the editor may bring out ideas from others. A healthy newspaper controversy may add spice to the columns of the local weekly, and start something of real value.

Travel: All dread of travel having

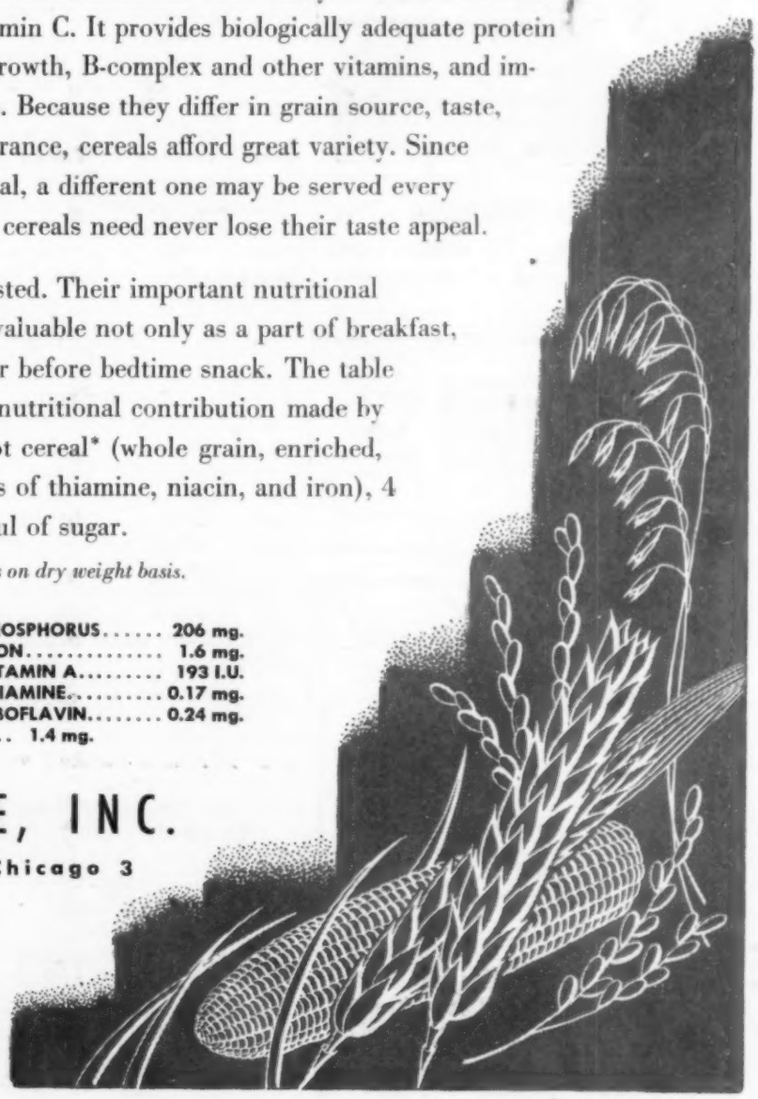
What More Could a Single Serving Provide?

THERE are many reasons why breakfast cereals are given such wide recognition by both nutritionists and medical authorities. The cereal serving, consisting of hot or ready-to-eat cereal, milk and sugar, supplies promptly utilized food energy in addition to abundant amounts of virtually all essential nutrients except vitamin C. It provides biologically adequate protein required for growth, B-complex and other vitamins, and important minerals. Because they differ in grain source, taste, and physical appearance, cereals afford great variety. Since they are so economical, a different one may be served every day or two, so that cereals need never lose their taste appeal.

Cereals are readily digested. Their important nutritional contribution makes them valuable not only as a part of breakfast, but also as an after school or before bedtime snack. The table below indicates the outstanding nutritional contribution made by 1 ounce of ready-to-eat or hot cereal* (whole grain, enriched, or restored to whole grain values of thiamine, niacin, and iron), 4 ounces of milk, and 1 teaspoonful of sugar.

**Composite average of all breakfast cereals on dry weight basis.*

CALORIES	202	PHOSPHORUS	206 mg.
PROTEIN	7.1 Gm.	IRON	1.6 mg.
FAT	5.0 Gm.	VITAMIN A	193 I.U.
CARBOHYDRATE	33.0 Gm.	THIAMINE	0.17 mg.
CALCIUM	156 mg.	RIBOFLAVIN	0.24 mg.
		NIACIN	1.4 mg.



CEREAL INSTITUTE, INC.

135 South La Salle Street • Chicago 3

The presence of this seal indicates that all nutritional statements in this advertisement have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.

Mother! You'll say
Dr. FROST'S FEEDING SPOON
is the handiest thing
for your baby

USEFUL! You can use Dr. FROST'S FEEDING SPOON to give baby...
1. ORANGE JUICE, and other fruit juices
2. CEREALS, such as Pablum, many others
3. STRAINED BABY FOODS

GREAT! You'll find that the patented features of Dr. FROST'S FEEDING SPOON save food, cut feeding time, reduce messing of garments. It's easy to clean, offers other wonderful advantages which you'll learn about from the directions in every package.

Dr. FROST'S FEEDING SPOON is backed by a 6-way money-back guarantee! $1.69 at Infants' Departments everywhere.

Here's Easy Feeding Procedure

To load bulb, separate from hollow handle, place open end in food, squeeze, release.

Replace bulb on handle, press to fill spoon. Feed regular way. Repeat pressure as needed.

Dr. FROST'S FEEDING SPOON is made of highly-polished surgical metal with a long-life sterilizable rubber bulb.

Dr. FROST'S MANUFACTURING CO.
4145 Olive St. · Saint Louis 8, Missouri

Thumb sucking—nail biting
can be discouraged

Thumb sucking and nail biting are unhealthful habits of children. Don't resort to bribes and promises, use THUM. Directions on bottle. Remove from fingers with nail polish remover.

THUM TRADE MARK

Easy to use. Apply like nail polish.

50¢ Sold at all drug stores.

THUM contains capsicum 2.34% in a base of acetone nail polish and isopropyl.

DR. ALLEN'S
Bottle Holder
Baby's pal

Mother's Helper
Food Stays Warm
Easy to Clean
Saves Time

$1.50 at Infants Depts. Everywhere

Richard G. Krueger, Inc.
1359 Broadway · New York 18, N. Y.

left me long ago, I enjoy going about, especially in those most democratic conveyances, busses, virtually new to me. I've had many a taste of the milk of human kindness and shared many a pleasant hour by neighboring with seatmates in the busses. The Boston Elevated provides a source of speculation as one looks over the crowd and ponders on the interesting manners and dress of the riders.

Errands: For errands and short rides there is a bicycle handy. The other day I had an errand on my wheel that took me down River Hill, the locally famed, long, fast coasting rendezvous for more than half a century. Did I yield to the temptation to let 'er go, faster even than ever I went on the old time double runners? I refuse to testify; but on the merest mention of such a thing I was put under heavy domestic bonds never to do it—shall I say *again*?

Calls: The experience of coming alive after a fifth of a lifetime, of getting home and surprising friends by my return on the scene or at the end of the wire, is a thrilling one. It was some time before I wanted to call on or telephone old friends, but now there is almost an excess of pleasure in making and receiving calls. In telephoning one should exercise restraint about revealing his return to unknowing friends; it is not pleasant to be taken at a disadvantage by mystifying approaches over the wire. There was excitement enough for me in the surprised and pleased responses I received.

Games: Croquet is my pet game—not the dainty game of the long-skirted '80's, with long-handled, flimsy mallets, wide wickets and dead wooden balls. The modern game uses short, heavy mallets, composition hard rubber balls full of zip, wickets only half an inch or less wider than the balls and stiffer rules.

Since getting home, I have a quickened sense of appreciation of "ordinary" doings, "ordinary" people and the accustomed mechanics and routine of living. Even in prehospital years, I could not have qualified as a true extrovert. I seem to have turned a double somersault, from an average sort of chap, socially, to bob up—I am told—as quite a chatty, friendly fellow.

It would be false modesty not to mention special events that indicate marked changes, not just from my state of mind when ill, but from that of my former self of twenty years ago. The past year, I am glad to say, has freed me from my old bogey of timidity and stage fright. It was not an abrupt change.

Jeanne, my daughter-in-law, gave me my first boost. In March 1944 she gave a song recital for the patients at McLean, and persuaded me to be her accompanist. Please realize that it was not easy for me, who had always held aloof from social contacts at the hospital, to face the assemblage of patients, nurses and doctors, who for years had hardly ever heard me speak. When I finished, they gave me a fine hand.

I soon found myself ready to take the next hurdle. I was helping arrange an entertainment at the hospital and at almost the last minute the performers canceled the engagement. I offered to provide the bill on my own—as principal, I mean. Mr. Whitford, organist and director of music at McLean, gave his permission. I worked up a nondescript program of piano selections, a couple of sleight-of-hand tricks and some talk about California. My efforts seemed to give pleasure, despite some sour notes that I had forewarned the audience to expect.

In June 1944, my college class celebrated its fiftieth anniversary. I served as toastmaster at the luncheon, where in a period of about two hours, the twenty or more members present confessed their sins and shyly admitted their achievements.

Omitting minor occasions, the biggest jump was in October 1944. This hurdle, eighteen months before, would have loomed like the Washington Monument.

The Dedham Rotary Club had a dinner in honor of the three hundredth anniversary of the founding in Dedham of the first free tax-supported public school in America. The fifteen Rotary Clubs within the limits of Old Dedham, that once extended to the Rhode Island line, sent delegations. It fell to me to introduce the speaker of the evening, President Daniel L. Marsh of Boston University. It is merely stating facts quite objectively to say that the two minutes and fifty-eight seconds I told the audience I would be "on the air" gave me none of the old stage fright, and to add that my friends told me I did a fine job.

Have I seemed to make too much of these episodes, gentle average reader? I know there's nothing phenomenal in them, of themselves. But to me, and to others who have looked into the dark pit of self distrust and nameless fear, there is more wonder and joy in the restoration of one falterer than in all the facile achievements of the ninety-nine who need no restoration.

"How can you *bear* to write so freely about all those bad years?" ask many of my friends. I have to smile. It has been a deep satisfaction right through—not a wink of sleep lost, not a twitch of a nerve from start to finish. Why, that old sourpuss in this story isn't me, anyway! Perhaps never was. I don't know—I leave it to the psychiarists to explain.

There seems now to be a need to recount such an experience. If my story helps just one sufferer to escape even a part of what I went through; if it brings hope to some family burdened with anxiety for one stricken with the terrible dread of mental breakdown and inspires confidence in the means available for recovery, I shall have great reason to rejoice.

So Your Daughter Is Away at College

(Continued from page 35)

dom and often forgets her next day's assignment until midnight. Over a period of weeks and months this situation can become serious. Exhausted by lack of sleep and irregular hours, her digestion affected by the between-meal snacks made possible by a more generous allowance than she has previously received, her daily academic work suffering through faulty preparation, this student is on the way to academic difficulties that may prove a starting point for maladjustment. Problems may assume such proportions that her only happy moments are those given to planning an early departure from the unpleasant environment in which she finds herself. In this connection, orientation of future students might profitably be begun in the home, where enlightened parents can help prepare the adolescent for the transition from secondary to higher education.

In the selected college group, competition is keener than in the freshman's former high school, where she shone in comparison to the dull and the below average student. Convinced she is putting forth her best efforts, in spite of careless budgeting of time and energy, she becomes discouraged. Seeking to rationalize her failure, she decides that she was badly prepared in high school, or that her ability in reading must be deficient since she can't complete assignments. She decides that her fellow students have greater ability, and that her professors are unfortunately overzealous and deprived of sympathetic understanding. One successful senior student confided to the writer that life's darkest moment had been the discovery that in her freshman house, every student on her floor, with the exception of herself, was a former valedictorian. Could anything but utter failure be in store for her?

When it comes to selecting courses listed in twenty or thirty departments, and of fulfilling "group requirements," she confronts the academic segmentation of over-departmentalization. Happily, recent educational trends show an increased awareness to this situation and a desire to provide a broadened, general education for beginning students.

No longer is she a member of the dominant social group in high school, the seniors who set the standards in dress, manner, and behavior, but rather a pathetic younger sister lacking maturity and sophistication. What to an adult eye is classified as almost a slovenly appearance, becomes a badge of group superiority. While any attempt by the authorities to impose a uniform would call forth protests, to

New antiseptic cream deodorant stops perspiration worries completely . . . doesn't dry out in the jar!

FRESH contains the most highly effective perspiration-stopping ingredient now known to science.

FRESH is a smooth cream that doesn't dry out in the jar. It is never greasy. Never gritty. Never sticky. Usable right down to the bottom of the jar.

FRESH never lets you down—try it yourself . . . you'll see why more women are switching to Fresh than to any other deodorant.

50¢ • 25¢ • 10¢

(Plus Tax)

Fresh is approved for advertising in publications of the American Medical Association

More NURSES use ARRID than any other deodorant

A recent, independent survey among 3,221 R. N.'s from coast to coast, reveals three major reasons why, among nurses, Arrid leads all other deodorants by a dramatic margin.

UNEQUALLED 3-WAY PROTECTION!

1 Arrid is really more effective. It instantly destroys past odor. Helps perspiration. Prevents future odor.

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More men and women use ARRID than any other deodorant!

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BE ARRID-SAFE
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TO BE SURE!
39¢ plus tax
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A Hot Application ★
—All Night If Needed
OVR-NITE
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HEATING PAD

For personal application of heat without use of electricity or heating of water. For the invalid or quick application of heat in an emergency. Ready for use in less than 5 minutes by adding 1 ounce of cold water which is completely absorbed by contents—no possibility of leakage. Its maximum temperature is 170° which it holds for about 9 hours. If heat is not needed for this length of time open flap in cover and it will cool in 1 hour which saves the heating hours of pad. Pad is pliable—adjustable to any part of limbs or body.

Guaranteed against deterioration by age and to give 110 to 120 hours' heat in consecutive or periodic heatings of 9 to 12 hours each.

Price of pad with washable rubberized fabric cover $1.15 prepaid. Additional pads without cover 90c prepaid.

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the casual observer she is almost regimented in her blue jeans, slacks, sweater, or dangling blouse, with the inevitable ankle socks and saddle shoes.

Few colleges are sufficiently fortunate to possess a majority of single rooms. Adjustment to a roommate is therefore a matter of real concern. Although students are thoughtfully matched by personnel officers, there are many intangible factors in their habits and standards and differences in their backgrounds that may result in conflict. Serious difficulty is encountered when a conscientious student who requires the maximum amount of sleep, her lessons finished on schedule, retires early only to be awakened by a boisterous roommate, who having danced all day, is now preparing to attend to serious matters. Other unhappy combinations are those of the meticulously tidy student and the careless one, or the resident who scrupulously follows regulations matched with an impetuous or defiant rule breaker.

The writer recalls the following case of incompatibility in her own dormitory. A delicate, retiring girl, with a strong religious background, gave evidence of dissatisfaction and distress over her living conditions. She refused to clarify her reasons at the time but begged to be given a single room, or sent home. She was transferred to another dormitory, and later she disclosed the reasons for her dissatisfaction. Her roommate had lived a cosmopolitan life in Europe and fancied herself a destined woman poet. To provide the artistic background necessary, she had a perfume flask filled with wine and when the Muses failed to inspire, would take a sip of the liquid. Her Bohemian behavior proved distressing to the sensitive religious girl, away from home for the first time, too loyal to report to the administration a flagrant infraction of the rules.

Colleges now realize the emotional adjustments that are expected of freshmen and have instituted helpful devices such as correspondence during the summer between upper-class counselors and incoming freshmen and a general orientation week in the fall. These counselors, often referred to as Big Sisters, perform a real service particularly in a residence college that emphasizes traditions.

Concentrated orientation programs are helpful yet many beginning students have told the writer that these activities were fatiguing.

Some institutions have adopted the plan of choosing, in the spring of the freshman year, students who have given indication of potential leadership. As sophomores they will be entrusted some of the responsibility for welcoming the freshmen after having recently survived the adjustment process themselves. These sophomores and junior Big Sisters, as hostesses to informal groups of freshmen, can, at simple teas and spreads answer questions and give advice more acceptably than "boring" adults and can help create the needed atmosphere of friendliness.

Whatever orientation devices may be used they should, to be successful, lessen maladjustment among new students.

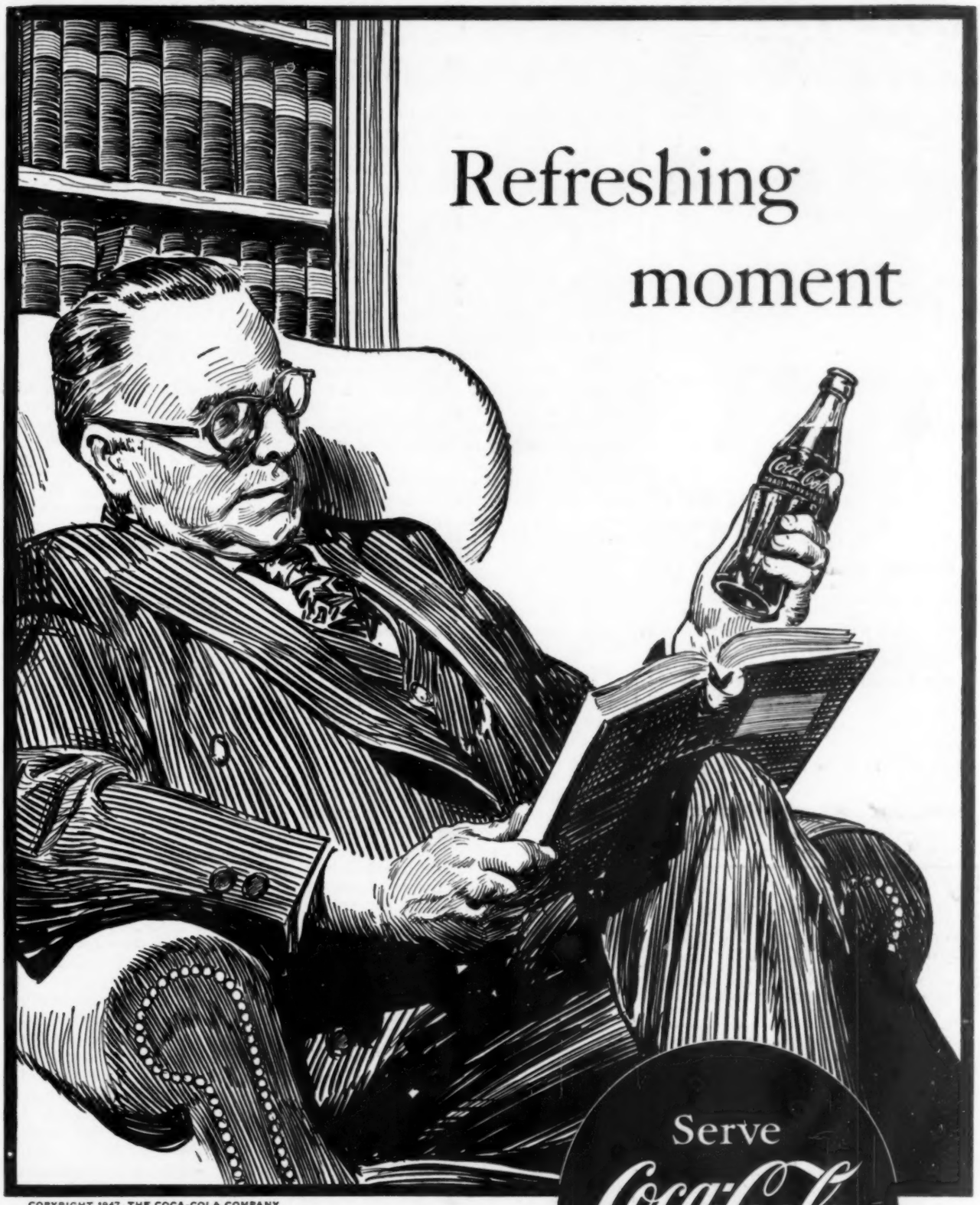
Social skill implies reciprocity in that the individual enjoys the society of a group and the group appreciates and recognizes the worth of her contributions. When a freshman can adjust with facility to various groups, maintain her prestige, and enhance with her presence, the new group with which she comes into contact, she shows a wellintegrated personality. Inadequate social adjustment is characterized by insufficient self-knowledge and the lack of insight.

Protective, domineering parents who supervise the young student are often responsible for the development of undesirable characteristics. Lack of judgment on their part, or impatience, may prevent the progressive growth of their child.

Maladjustments in college vary. In simple manifestations, they are merely indicative of difficulties that are encountered by any learner in a given situation and can often be traced to causative factors in childhood. There is the colorless person, reticent and retiring, who through indifference, timidity, aloofness, or lack of opportunity, consciously or unconsciously refuses to participate in social activity. Embarrassing or differentiating physical characteristics—debility, blemishes, scars, peculiarities of structure, feature, or complexion, nervous tics or speech defects—may be the cause of many insecurities. A sharply contrasting group may be classified as aggressive with irritating personality traits that prevent acceptance by fellow students. Another type may be handicapped by some form of caste system, based on racial, national, religious, linguistic, or socio-economic differences. Variation in dress, or worry over a lack of popularity may produce feelings of inferiority. Discordant home relationships are an additional handicap to adolescents.

Intelligence and age may affect social participation. In a college community, those who through immaturity or relatively inferior mentality must concentrate on their studies in order to obtain passing grades, find little time for social activities. When gifted classmates succeed with little effort, they are apt to become discouraged. A failing student may seek attention by adopting an aggressive, boastful, or destructive attitude, or will indulge in romancing and fantasy building. Again, she may suffer from a feeling of injustice and the conviction that undue favoritism is shown to students and react in an objectionable way.

If an undergraduate can be made to realize the unchangeable nature of her physical and mental char-



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acteristics and to accept this fact philosophically, she will be well on the road to the conquest of these maladjustments. With the initiation of a personal program designed to capitalize on her potentialities, she may achieve a happy and attractive personality.

Many years devoted to teaching college students and intimate acquaintance with them in dormitories have lead the writer to formulate the following suggestions for undergraduates.

Good health should be a primary concern. Efficient learning cannot take place over a period of weeks or months if sleep and exercise are practically nonexistent and meals irregular, with a tendency towards concentration on super sundae specials and candy bars at odd moments.

Keep abreast of daily assignments. A class cut, a lesson missed, a book unread, has an uncomfortable way of pyramiding and causing discomfort and anxiety at the time of your next quiz.

Obey community regulations. They have been devised over a period of years, not to thwart individual privileges, but to insure maximum comfort, safety and happiness for a group living together.

Use good judgment and develop more. Ignore Sally Lou's example when she neglects her lessons or disobeys the rules.

Be thoughtful of others, including the head of the house. Volunteer to serve the Sunday after dinner coffee, or to substitute as a waitress for a sick student. Be punctilious about cooperative house tasks.

Postpone adoption of questionable new habits. Many popular college leaders neither smoke nor play cards.

Make a personal contribution to house activities by interesting table talk, attendance at informal house teas, cooperation in house stunts or dramatic skits. Try out for freshman plays, glee club, sports. If success does not crown all your efforts, you will obtain membership in some activity and widen your circle of friends.

Notice the dormitory students. If one seems particularly unhappy, make some friendly gesture toward her.

A dislike of college demands swift remedial action. Among acquaintances including the house mother, class adviser, dean of women, Y. W. C. A. secretary, college doctor, director of the study clinic, one of your new instructors or your junior big sister, you will find a friend to advise and help you.

If housemates seem more attractive, brighter and more successful than you, learn to qualify for appreciation as a truly interested and excellent listener.

Budget time and energy. Debilitating colds should be cared for at the infirmary and academic duties take precedence over social pleasures.

Remember parents whose sacrifices have made college possible. Be reasonable in requests and allow them to share your new life with you through letters.

Many adolescents, thanks to superior home training, will be intuitively guided by common sense principles and ethical values that underlie the above suggestions. Character developing responsibilities in the home circle and community could be helpful learning exercises for candidates still on college waiting lists. As for the returning postfreshman, patient and understanding parental guidance during the summer may help her achieve stability and attractive personal growth that will enrich her sophomore year. If academic and home forces work in harmony, maximum results may be expected with reciprocal happiness for all concerned and college will become, as President Wriston of Brown so aptly said, "an experience both individual and social . . . a time for the maturation of personality."

Dividends from the Quest for Health

(Continued from page 43)

ple in the natural and physical sciences are playing a great role with numerous important discoveries. The people engaged in the public health services of our state, federal and local units are bringing the gospel of health to many. Also, at many places and levels in the educational system we find new stress on health; while we're thinking about it, let us not forget the traffic policeman who, despite our frequent lack of appreciation, is really trying to reduce one of the great scourges of the mechanical age, accidental death. Although he hurts us sometimes, the dentist has added much to our comfort and our health and has contributed in many ways to medical progress.

So many are the people and so varied are their contributions that those engaged in this quest for health resemble the various musicians in a great symphony. The general medical practitioner waves the baton, the medical specialist occupies the first violinist's chair and the nurse sits in the wings off the stage; the others play the different instruments. Now that we can place an economic value on the joint efforts of these people in producing longer life, who can say that the price of admission to this "symphony" is too great? Who can say that all of the costs involved in the tremendous outlay to prolong life are excessive? Health work pays! But far sweeter than the jingling of money saved or more money earned is the message that you and I can enjoy more years of life, liberty and the pursuit of happiness.

Preventing Whooping Cough

(Continued from page 25)

1934 not one injected infant has been known to develop whooping cough while at the institution, although from time to time infants have been admitted with the disease.

Because only a small percentage of children throughout the United States, especially of the poor are vaccinated against this disease, the persistent annual death toll continues.

A simple whooping cough skin test, perfected by Dr. Earl Flosdorf of Philadelphia, is a valuable aid in helping physicians determine whether protection against the disease has been conferred by the vaccine. It is now becoming customary for physicians to perform this test three or more months after the last dose of vaccine has been administered and to check it the following day. Infants showing insufficient protection are then usually given a stimulating ("booster") dose.

An appreciable percentage of infants less than 6 months of age may not possess the power to develop immunity from whooping cough vaccine injections. Others injected early in life may lose their immunity in a relatively short time. When the injections are begun before 6 months of age, the skin test should be performed. The infant may need another complete set of whooping cough vaccine injections, that may be combined with the diphtheria immunization, later on.

Before a child, immunized during infancy, attends school, or, is intimately exposed to a known case of the disease years after immunization, prompt injection of one dose of vaccine or the combination of vaccine and diphtheria toxoid (or vaccine, diphtheria and tetanus toxoids) is recommended by many physicians. This dose should heighten the child's defense against infection and prevent invasion of the germs and subsequent development of the disease.

Injection of potent whooping cough vaccine is seldom followed by any severe local reaction (at the site of the injection), but transient fever, rarely very high, may occur. When alum precipitated vaccine, combination of whooping cough vaccine and diphtheria toxoid, or whooping cough vaccine, diphtheria and tetanus toxoids are used, a local reaction is more likely to occur. Combinations that confer the highest and longest protection contain alum and occasionally cause a local reaction that may persist for a few weeks. About 1 or 2 per cent of alum precipitated injections form a sterile cyst which, when not absorbed, may eventually discharge through an opening in the skin caused by the needle prick. Some of the injected

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material exudes before the lump decreases. This is not an infection but a reaction from chemical irritation that occasionally follows. When a local reaction persists longer than a few weeks, it is advisable to consult a physician, especially if it increases in size. Best protection against whooping cough, diphtheria and tetanus occurs when an alum mixture is used. Because local application of medicines or warm wet packs are likely to bring the cyst to the surface it is advisable that the area be left alone. Perhaps in the future an equally potent mixture will be perfected without this occasional cyst formation.

Cautious mothers should keep their young, unprotected infants away from parties, movies and beaches where intimate exposure to this childhood disease may occur. However, the best advice for parents to follow—in the event their non-injected infant has been intimately exposed or when their child shows any telltale symptoms of the disease, is to consult a physician or local clinic immediately. For, without the full cooperation and alertness of parents this dreaded childhood disease will never be eradicated.

Your Children's Eyes

(Continued from page 21)

need glasses at all. That in itself is not important. It's that we know now that he will never be handicapped in seeing, by his appearance, in undesirable personality quirks or economically because of cross eyes. This alone gives a parent a gloriously thankful feeling. Jack is a different person. It's as though he knows he can hold his head up and look squarely at a person. There's nothing to hide or be ashamed of.

I sigh fearfully when I think how close I came to not mustering the courage to have this simple operation performed and how I almost believed the foolish tales about children outgrowing cross eyes and how rarely operations help—all because I hadn't learned the facts.

No doubt our experience has made my husband and me eye conscious. We have noticed so many young people with a condition similar to Jack's. We feel an almost unconquerable urge to speak to them or their parents on the street, on the subways, anywhere to tell them how simple, successful and totally worthwhile present day surgery of this kind is!

Dr. Luther C. Peter, wellknown eye specialist, says this: "One can reassure parents that all cases of cross eyes can be corrected, but it requires their heartiest cooperation and a willingness to put aside their prejudices and lay ideas."

Surely then, no one needs to go through life crosseyed!

The Diabetic Child

(Continued from page 17)

This is one of the most important sections of this article. Read it carefully and ask your spouse to read it because it concerns you both. The surroundings of a diabetic should be as happy as possible and both the diabetic and the spouse must do all they can to keep it that way.

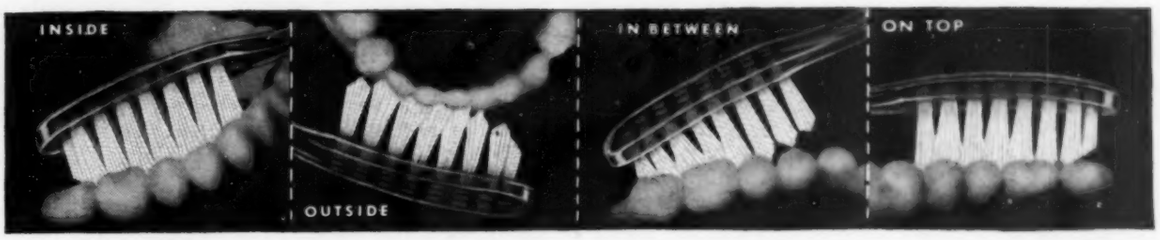
Some time ago, I overheard three women chatting. One of them was a diabetic, another had a diabetic husband and the third had a mother who died of diabetes one year before the discovery of insulin. Knowing that diabetes runs in families, the diabetic warned the woman whose mother was a victim, to be on the alert for diabetes in herself and her children. Said the diabetic woman, "The old saying 'Misery loves company' is not true of a diabetic. All diabetics feel they should speak this little word of warning to those with a history of diabetes in their family, because having it is no fun." The lady whose husband has diabetes, spoke up, "No, and it's not always fun living with one who has it, either."

This started me thinking. There are a great many ways a family can help a diabetic, but we diabetics must always keep this in mind—we should do the most of anyone in the household to keep the living in the home, normal, happy and cheerful. Let us think of some of them.

First, learn all you possibly can about your illness and then apply it, but—PLEASE—don't keep thinking and talking about it continuously. You'll soon sound like a wornout phonograph running down. One of the worst things the mate of a diabetic would have to endure would be to listen day in and day out to the victim discussing diabetes: Don't do it!

Be independent! Do everything for yourself. It is impossible to be a lazy and at the same time a successful diabetic. Don't let the spouse get all of the education on your disease and then expect him or her to wait on you as though you were an infant. As a group, we diabetics are a proud lot and a lazy attitude does not become us. As long as you live you will need your diabetic education, not the length of the life of your spouse. Don't wait for the spouse to remind you, "It is insulin time"—"It is test time"—"You have had your insulin long enough. You should eat now." Do your own thinking! Perk up and be independent.

Another thing, don't project your daily diabetic routine into the daily life of the household any more than is absolutely necessary. Take your insulin and make your tests in private just as much as possible. There is no advantage in keeping your condi-



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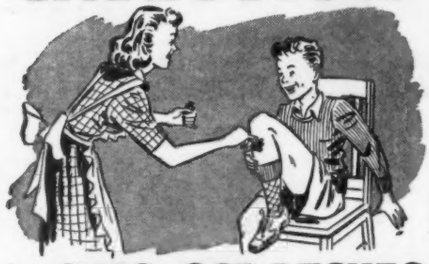

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tion constantly before the other members of the family.

If you are a diabetic wife, prepare meals for your spouse the way he likes them and fix yours to look as much like his as you possibly can. Take, for instance, jello salad or dessert. Make his with the regular jello and yours the same flavor but of a sugarless mixture such as D-zerta. He will feel happy thinking your meal looks like his. The same thing works in reverse, if the husband is the diabetic. The wife will feel happier if his meal appears similar to hers.

There is another "must" for diabetics, and that is—Diabetics Must Always Be Cheerful. Take a happy attitude towards daily living and you will find the horizon of your life will become brighter. Don't grumble when you can't have as much of this and that to eat as you would like. The spouse may even say, "Your dinner looks a little on the skimpy side tonight. Shouldn't you have a few more potatoes?" You know the scale says this is the limit for you, but you answer, "What, and ruin my figure?" You may be drooling for some of his potatoes, but don't let him know it, or he won't enjoy them.

If you are a diabetic wife, then always keep yourself clean, neat and attractive in the home. One of my greatest joys is to rise early, take a warm, sudsy bath, put on fresh clothes from inside out, perch a perky little bow in my hair and even dash some cologne behind the ears. What a wonderful beginning for the day! It boosts morale and the admiration in hubby's eyes makes it all worthwhile. We diabetics have been told by experts that we should be the cleanest people in the community, and I would like to add—yes, and in the home too.

The same routine of cleanliness should be followed by the diabetic husband (with the exception of the bow, and cologne behind the ears, of course). His morale booster could be polished shoes, well creased trousers, clean white linen and bright ties that reflect cheerfulness. It would be good for him to start to work in time to get in a short, snappy walk. There are so many little things a diabetic can do to make his living a joyful one and not one of them should be overlooked.

Not long ago a friend of mine came to see me. After our greetings and a little talk, chit-chat, she said (her face white and tense), "My husband has developed diabetes and we worry so." My heart went out to her in a way she couldn't even understand. I knew the problems, adjustments, the education and its application that both of them must face. I could also understand, "We worry so." This woman has always had a cheerful and intelligent approach to life, so even though she and her husband were at that moment passing through a valley of darkness, I was confident that they would be able to face their situation squarely and then the worry would be gone. She said, "I have books on diabetes from the library and we are studying them." They were certainly on the right track and with this attitude a happily adjusted life is ahead of them. Here is where I would like to stress the fact that neither the diabetic nor the spouse should worry. Worry is one of the greatest enemies of all mankind, but it is especially an enemy in a diabetic household.

Trust your diabetic spouse to live his life and don't be a policeman or a nagger. Perhaps there is nothing that bothers a diabetic more than having someone scrutinize his plate closely and watch his fork on each trip to his mouth, to see that nothing is eaten except what the book says. A trusted diabetic is a happy diabetic. At each meal don't keep asking "Is this in your diet?"—"Should you have this?"—"Don't you think it would be best to let this alone?" This treatment drives a diabetic to distraction! He knows better than anyone when he is breaking faith with you and suffers conscience twinges that you will never see. If you trust him and never express doubt in his integrity, you will be living with a happy diabetic. Please don't be a nagger!

However, you should always show interest. Let us use his tests as an example. My husband always asks what my tests have been. If they have been 0, 1, or 2, he says, "Good for you." If they have been 3 or 4, he comes up with something like this, "Well, our diabetes is in full bloom today." And he smiles. That is all. I love him for this attitude and determine in my heart to keep the 3s and 4s down as much as possible because he trusts me. He knows this and never has to worry.

The spouse of a diabetic should learn how to measure insulin into the syringe and inject it. This is good for him to know in case of an emergency. The spouse should encourage the patient at all times and do what he can to assist the diabetic in keeping to the rigid routine. One woman said, "My daughter and I now eat the same food as my diabetic husband and we feel so much better." A diabetic who has won the victory over food, never begrudges food to anyone, but this woman's cooperative spirit is to be commended and their adjustment to diabetic living is real. Just use common sense together with your knowledge of the illness.

Because such close harmony of living is necessary, what could be sweeter than to discover that through it the wedding knot is not only tighter, but has become sugar-coated as well?

Final portion of this serial on diabetes will appear in the February issue of HYGEIA.

Frostbite: Facts and Fictions

(Continued from page 39)

Drs. Lang and Boyd reasoned that if something could be injected into the blood stream to prevent this clumping of blood cells, gangrene could be avoided. They decided to try heparin, a substance used in surgery to prevent dangerous clotting in blood vessels after operations. Heparin was given to rabbits one-half to three hours after their hind legs had been artificially frozen. In every treated animal, fluorescein was visible in the skin of the legs at all times, showing that heparin prevented blocking of the circulation. No treated rabbit developed gangrene. Every untreated rabbit lost its hind legs.

The experiment was now ready to be tried on human subjects. With the help of Dr. Loewe, eight volunteers were treated at the Jewish Hospital, Brooklyn. A crucible containing dry ice was held over the skin of the inner arm for ten minutes. This produced a temperature of about —7° F. Seven of the patients were given heparin immediately; one patient was not treated. All of the heparinized patients escaped deep tissue injury; the lone control developed all the symptoms of severe frostbite. Heparin was later used to treat accidental frostbite cases and proved equally effective in clinical practice.

Some otherwise healthy people do not respond normally to cold. The first natural reaction to cold is a constriction of the blood vessels at the surface of the skin. This is followed by dilation and again by constriction in alternation. There is an easy way to find out whether you react normally to cold. Hold your arm in cold water for a few minutes. If it looks pink and feels pleasantly warm and glowing after immersion, you are OK; if it remains pale and cold, you had better take added precautions against frostbite.

Other people are hypersensitive to cold and break out in a form of hives when exposed. This is probably a type of allergic reaction. It has been shown that cold-injured tissues release histamine, the same substance that is responsible for other allergic reactions such as hay fever. Histamine is probably responsible for the pain, itching, redness and swelling of chilblains.

In frostbite, as in other ailments, an ounce of prevention is worth more than the pound of cure. The first and most obvious precaution is to wear plenty of warm clothing and be sure that none of it is tight enough to cut off circulation. Don't stand still long enough for Jack Frost to catch up with you. Keep moving. If all other precautions fail, you can always take up residence in Southern California.

Wanted: More Protein

(Continued from page 19)

This condition is known as a nutritional edema and can generally be corrected by eating a high protein diet.

Scientists have found that animal proteins are better than those derived from vegetables. Meat, fish, poultry and dairy products are by and large superior in nutritive efficiency to cereals such as wheat, corn and oats. Those of animal origin contain more of the essential amino acids in greater quantities per pound than do those of plants. However, small amounts of animal protein will greatly enhance the values of grains and legumes.

For example, the indispensable amino acids lysine and tyrosine are present in varying amounts in the proteins of meat and corn. One hundred grams of meat protein will furnish 145 per cent of our daily requirement of lysine but only 80 per cent of our tyrosine requisite. A similar quantity of corn protein, however, will supply 155 per cent of that tyrosine requisite and 40 per cent of the amount of lysine necessary for proper metabolism. Thus, if meat and corn proteins are your only source of amino acids during a given day, 100 grams of corn protein supplemented with approximately 42 grams of meat protein will supply ample quantities of the amino acids. Conversely, 100 grams of meat protein together with 13 grams of corn protein will fill our daily needs. If you were to rely on either of these proteins as your sole source of amino acids, you would have to consume 125 grams of the meat protein or 250 grams of the corn protein daily. From the standpoint of health and variety, a mixed diet is best, as our protein should not be of one origin.

When our diets are mixed and contain full amounts of the essential amino acids, we need not worry as to whether or not we are getting enough vitamins, minerals and fats. Pure proteins exist only in the chemist's laboratory and daily meals supplying a balanced quantity of amino acids will, with a normal water intake, furnish all other necessary nutrients.

Clearly the world's food problem today, the problem of those people occupying that cave on the side of a hill in China, is not altogether what we have been led to believe it is—namely, that of supplying calories in amounts sufficient to meet caloric standards set by nutritionists. Rather, it is the task of giving to the people of all nations the knowledge and tools and foods that will carry them over the hump of starvation now and prepare them for a future in which they will produce quality proteins in quantities great enough to assure balanced diets for all.

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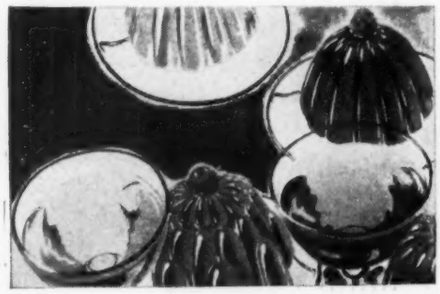

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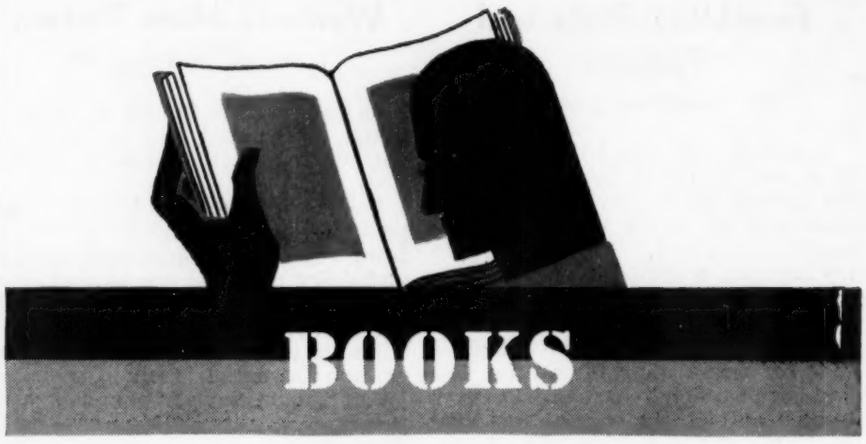

Katharine Kent

By Mary S. Gardner. Cloth. Price, $2.75. Pp. 298. The Macmillan Co., 60 Fifth Ave., New York, 1946.

"Katharine Kent" is a fictitious story of a girl who planned to be a nurse and accomplished a wonderful life of relieving suffering, preventing sickness and aiding others who are doing the same thing. The narrative begins in 1905 and describes the development of public health nursing standards to its achievement on an international scale within thirty years. Presentation is interesting and absorbing, yet the author crusades for her ideals. The book should be of value for prospective and young nurses, allied professionals and laymen who are community leaders and are therefore interested in public health nursing.

M. G. Westmoreland, M.D.

Sex, Marriage and Family

By Thurman B. Rice, A.M., M.D. J. B. Lippincott Company, E. Washington Sq., Philadelphia, 1946. Pp. 272. Price $2.50.

This frank and forthright book does not hesitate to deal with the relationships involved in marriage on a basis of idealistic realism. The author has had a long experience in counseling, and teaching young people. He has children of his own with whom he has kept in close touch.

The book deals with the sex problems involved in marriage in the war situation that prevented or brought about unsatisfactory marriages with long separations, and the problems of soldiers returning to brides whom they scarcely knew after long services overseas. The economics of marriage and the implications of having a baby are discussed.

The book never hesitates to present each subject fully and forcefully. Realities are not obscure, but at the same time the author manages to express a philosophy in which the best and most practical of the idealistic approach to marriage and sex is retained without being "goody-goody."

This is a thoroughly wholesome book that young people should read before marriage if possible, but surely after marriage rather than not at all.

W. W. Bauer, M.D.

Health Education in Rural Schools and Communities

By Nina B. Lampkin, Cloth. Price, $2.50. Pp. 209. A. S. Barnes & Company, 67 W. 45th St., New York, 1946.

This volume is developed around the concept of home, school and community cooperation for health education. There has long been a need for special treatment of those health problems peculiar to rural schools and communities.

Health education is considered as a part of day to day living which will include a well balanced educational program devoted to the improvement of human living. The book, intended primarily for guidance of teachers and administrators, emphasizes the discovery of health problems in the school, the home and the community and the working out of ways for solving these problems. Part I, consists of four chapters dealing with the discovery and solution of general health problems in rural areas. Part II, develops the methods and procedures of helping children in rural areas to understand and practice healthful living. Part III, is concerned with the problems in relation to rural high school and community cooperation. Part IV, deals with the teacher's health and preparation and considers pre-service and in-service education, while Part V furnishes additional materials, evaluation procedures, bibliography and other teaching aids.

Both the approach to the problems of health education in rural schools and communities and the development of the program are consistent with present educational philosophy in a democracy, in which participation by pupils, teachers, parents, physicians, nurses and others is emphasized. Successful teaching is defined as including instruction in the right ways of utilizing on-going activities of the school day as real situations for health education. Stress is placed on the opportunities for practice of adequate health behavior in pleasant and healthful surroundings.

It may be read with profit by all those concerned with the health and welfare of the school child.

Fred V. Hein

Your Operation

(Continued from page 45)

carried out when the patient goes home have a distinct purpose and should not be subject to modification on the advice of friends. The doctor alone can best decide when the patient may be allowed out of bed at the hospital and the extent to which former activities may be resumed after returning home.

The diet is sometimes a matter for controversial advice from the family circle of friends. Often this is due to a lack of insight into the reason for the choice of certain foods. Here again there is purpose that may be defeated by unwarranted suggestions. In any given case there may be specific needs that cannot be met without compliance with dietary restrictions or recommendations. Often the busy surgeon has little time to elaborate on the reason for certain instructions and rightly expects some degree of "blind obedience" from all his patients.

One frequently held misconception is the belief that the greater the length of the surgical wound, the longer the time required for it to heal. This may be true under certain circumstances but it is not necessarily correct reasoning. This can be realized when it is pointed out that wounds heal across, edge to edge, and not lengthwise; and a long incision may heal as quickly as a short one. Most uninfected surgical wounds are completely healed by "first intention" in ten to fourteen days. Infected wounds take longer. The surgeon has all this in mind in deciding when a wound is sufficiently healed to remove sutures and to allow the patient out of bed. Much depends on the age and condition of the patient, place and position of the wound, type of sutures used to close it and the amount of strain to which it will be subjected. Some structures normally heal faster than others but this may vary within the same structure depending on the location. For example, the skin of the face, because of a more thickly distributed network of blood vessels, heals more rapidly than that covering the abdomen or back. Often an incision that is protected from within by a strong muscle can be subjected to early strain with perfect safety.

That is why, depending on the circumstances, it is entirely possible to allow some patients that have undergone uncomplicated removal of the appendix, out of bed in as little as two or three days, while others may be in bed for as much as two or three weeks or longer. How futile it is then, for relatives or friends of the surgical patient to dictate advice based on the experience of another person who may have had an entirely different type of operation for the same condition.

Differences in convalescent procedures are the result of newer surgical methods of handling the same disease. This is true today, when as never before, particular attention is focused on the avoidance of prolonged convalescence. Patients today are generally allowed up much sooner than in former years, partly because of newer methods of operation that make it safe, but also because it has been learned that certain complications can be avoided in this way. There are of course many exceptions to this present day tendency. For instance, patients that undergo operation for the repair of a hernia, cannot be allowed up as soon as in other kinds of operation. This is not because healing is slower, but because the wound cannot be subjected to early strain until it has attained maximum firmness. All wounds, even those in which there is no infection, heal by scar formation and the scar is not as firm or strong at the end of a week as it is at the end of a month. The use of special suture materials that need not be removed, can sometimes be used under the skin to provide added strength, until the wound is strong enough to bear the strain. In certain cases this may make it possible to get the patient out of bed earlier and avoid complications attributed to prolonged convalescence in bed.

By careful attention to the medical, surgical and caloric needs of the patient, prolonged convalescence at home is less frequent than in former years.

Surgical treatment today is constantly undergoing changes to improve the care of patients. Much of this has resulted from the surgeon's study of previous methods as compared to the results obtained. Thus from its earliest days, surgery has grown from a method of treatment fraught with pain and danger to one of careful application for the safety of the patient and the relief of many distressing ailments. That is why more than ever one hears the words, "So You've Had an Operation."

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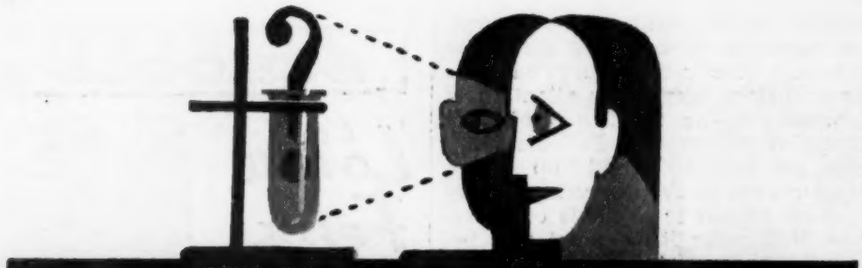

HEALTH in the headlines

By KATHLEEN SIMMONS

LEECH MEDICINE AGAIN

In case you've been wondering, the anticoagulant secretion that leeches inject into their victims' veins is called hirudin and it appears only after the leech has fed on the blood of a mammal. In response to a query, *The Journal* of the American Medical Association says, no, it's not a good anticoagulant for doctors to use on human beings because it isn't very effective and, furthermore, may cause vomiting, severe bloody diarrhea or hemorrhages in the internal organs.

OUR WANING INTELLIGENCE

A subject that warrants more study than it has, to date, received, and one which may become cause for alarm, is the apparent decline in intelligence in each generation revealed by several recent studies. Dr. Godfrey Thomson, writing in *Eugenics Review*, says it is impossible to say how much the decline is due to hereditary factors and how much to environmental. The differential birth rate (that is, the tendency among people of low intelligence to have more children than people of high intelligence) may be partly responsible.

SURGERY A LA FRANKENSTEIN

Karloffian though the tale may sound, a perfectly sober and respectable surgeon recently described (in *Surgery*) a case in which he successfully transplanted one of her toes to the hand of a young woman who had had a finger amputated. Over a period of several weeks, maintaining life and circulation in the toe, the surgeon, Dr. F. Young, removed it to the finger stump. Eight months after the transplant the "finger" was normal in color and sensation, and the nail had become more fingerlike. Dr. Young says that the big toe of the opposite foot serves as the best replacement for a thumb, and that the second toe on the same side works best as a new finger.

ALCOHOL AND CONCEPTION

An old, old belief, and one dear to the hearts of speakers for prohibition, was shattered recently by *The Journal* of the American Medical Association when, in answer to a question, it stated flatly that it is unlikely that a child conceived when its parents were intoxicated might be born defective because of alcohol's effects on the germ cells. Says *The Journal*, a 5 per cent alcohol solution might cause damage to germ cells, but, even at the height of intoxication the alcohol concentration in the human body doesn't reach more than 0.5 per cent. If the concentration rises to 0.7 or 0.9 per cent, the drinker dies of respiratory failure. Indeed, the germ cells "are better protected against damage than the organisms that carry them."

HOMICIDE INCREASE

Murder is on the increase. Each month since September 1945 has shown a higher homicide rate than its corresponding month of the year before. During the first six months of 1946 there were 4.2 murders per 100,000 people—the highest rate in seven years. The increase has occurred only among people under 45 years old. Over 45, the rate has decreased. In suggesting possible explanations for the phenomenon, the Metropolitan Life Insurance Company's Statistical Bulletin lists (1) postwar letdown in national morale, (2) frequent failure of postwar job opportunities, (3) familiarity with firearms acquired during wartime and the large number of souvenir guns available and (4) the decreased industrial employment and discontinuance of civilian war activities. The last named factor leaves people with more time for petty quarrels and domestic disputes, that are the immediate cause of a large proportion of homicides.

How about reversing the trend? Restricting the sale of guns more than we already have might help, says the Bulletin, but "greater efforts should be made to eliminate such environmental factors as poor housing, ignorance and the lack of proper recreational facilities, conditions that encourage crime and antisocial behavior."

MICE AND MEN

The latest gift bestowed on man by his friend the mouse is information on the potency of pain relieving drugs. Two researchers, John F. Reinhard and Edwin J. De Beer, gave doses of alcohol, acetophenetidin, acetanilid, antipyrine, aminopyrine, acetylsalicylic acid (aspirin) and Demerol (separately, not all at once) to mice and then applied electric current to their tails. The more effective the drug, the more voltage the mice endured without complaint. When the voltage became strong enough to override the protective blanket of the drug, the mice squeaked.

By comparing the amount of voltage necessary to make a mouse squeak when a certain amount of the drug has been given him, with the amount of voltage that will make him squeak when the same amount of morphine has been given, the power of a pain relieving drug in terms of the established standard, morphine, can be easily computed.

COLOR MEASUREMENT

A measuring method now makes it possible, for the first time, to record accurately and objectively the color of a person's skin. D. J. Nealon, who invented and reported it, to the American Chemical Society, records the color of his subject's skin by photographing it against a background of known exact shades, under carefully controlled, always constant conditions of light. Using this method, he has been able to determine the bleaching effects of an ammoniated mercury ointment on the skin of 51 Negro subjects. He reports that the cream has a demonstrated lightening effect of from 6 to 8½ per cent.

RESPONSIBILITY AND CRIME

"During the last fifteen years it has become a recognized point of procedure, when a serious crime cannot be defended on other grounds, to seek medical men to provide that peculiar defense known as 'diminished responsibility.'" So said Scotland's chief criminal Judge, Lord Cooper, in addressing the Royal Medico-Psychological Association. Pointing out that certain people are free to commit crime with little danger of reprisal simply because psychiatry claims to put them in a certain category that relieves them of responsibility, he urged that in dealing with criminal cases, psychiatrists should check their information with great care before pronouncing a diagnosis of lowered responsibility.